



DCIR4 siRNA (m): sc-142901

BACKGROUND

The C-type lectin/C-type lectin-like domain (CTL/CTLD) superfamily consists of a variety of proteins that share a common protein fold and have diverse functions, including cell-cell signaling, cell adhesion, glycoprotein turnover and immune responses. DCIR4 (dendritic cell inhibitory receptor 4), also known as Clec4a1 (C-type lectin domain family 4, member a1), is a 245 amino acid protein containing one C-type lectin domain and belongs to the C-type lectin superfamily. DCIR4 may function as a regulator of antigen presenting cells. DCIR4 is encoded by a gene located on mouse chromosome 6 F2.

REFERENCES

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2. Ebner, S., et al. 2003. Evolutionary analysis reveals collective properties and specificity in the C-type lectin and lectin-like domain superfamily. *Proteins* 53: 44-55.
3. Flornes, L.M., et al. 2004. Identification of lectin-like receptors expressed by antigen presenting cells and neutrophils and their mapping to a novel gene complex. *Immunogenetics* 56: 506-517.
4. McMahon, S.A., et al. 2005. The C-type lectin fold as an evolutionary solution for massive sequence variation. *Nat. Struct. Mol. Biol.* 12: 886-892.
5. Gijzen, K., et al. 2006. C-type lectins on dendritic cells and their interaction with pathogen-derived and endogenous glycoconjugates. *Curr. Protein Pept. Sci.* 7: 283-294.
6. Kanazawa, N. 2007. Dendritic cell immunoreceptors: C-type lectin receptors for pattern-recognition and signaling on antigen-presenting cells. *J. Dermatol. Sci.* 45: 77-86.
7. Guo, X., et al. 2008. Dendritic cell inhibitory and activating immunoreceptors (DCIR and DCAR) in duck: Genomic organization and expression. *Mol. Immunol.* 45: 3942-3946.

CHROMOSOMAL LOCATION

Genetic locus: Clec4a1 (mouse) mapping to 6 F2.

PRODUCT

DCIR4 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 DCIR4 shRNA Plasmid (m): sc-142901-SH and DCIR4 shRNA (m) Lentiviral Particles: sc-142901-V as alternate gene silencing products.

For independent verification of DCIR4 (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-142901A, sc-142901B and sc-142901C.

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

DCIR4 siRNA (m) is recommended for the inhibition of DCIR4 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 DCIR4 gene expression knockdown using RT-PCR Primer: DCIR4 (m)-PR: sc-142901-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.