SANTA CRUZ BIOTECHNOLOGY, INC.

CD300C siRNA (m): sc-142191

BACKGROUND

CD300C (CD300 antigen-like family member C), also known as CLM-6 (CMRF35-like molecule 6), is a 224 amino acid single-pass type I membrane protein that is present on the surface of neutrophils, monocytes and a select proportion of peripheral blood B and T lymphocytes. CD300C contains two potential N-gylcosylation sites, a potential O-glycosylated hinge-like region and an Ig-like V-type (immunoglobulin-like) domain that is very similar to the Fc receptor for polymeric IgA and IgM. The gene encoding CD300C is localized to a region on human chromosome 17 that harbors a susceptilibty locus for psoriasis, dermatitis and rheumatoid arthritis, suggesting a possible involvement of CD300C with these conditions.

REFERENCES

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2. Daish, A., et al. 1993. Expression of the CMRF-35 antigen, a new member of the immunoglobulin gene superfamily, is differentially regulated on leucocytes. Immunology 79: 55-63.
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4. Speckman, R.A., et al. 2003. Novel immunoglobulin superfamily gene cluster, mapping to a region of human chromosome 17q25, linked to psoriasis susceptibility. Hum. Genet. 112: 34-41.
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7. Clark, G.J., et al. 2007. Novel human $CD4^+$ T lymphocyte subpopulations defined by CD300a/c molecule expression. J. Leukoc. Biol. 82: 1126-1135.
8. Ju, X., et al. 2008. CD300a/c regulate type I interferon and TNF-α secretion by human plasmacytoid dendritic cells stimulated with TLR7 and TLR9 ligands. Blood 112: 1184-1194.

CHROMOSOMAL LOCATION

Genetic locus: Cd300c (mouse) mapping to 11 E2.

PRODUCT

CD300C siRNA (m) is a target-specific 19-25 nt siRNA 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 CD300C shRNA Plasmid (m): sc-142191-SH and CD300C shRNA (m) Lentiviral Particles: sc-142191-V as alternate gene silencing products.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

CD300C siRNA (m) is recommended for the inhibition of CD300C 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 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 CD300C gene expression knockdown using RT-PCR Primer: CD300C (m)-PR: sc-142191-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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