SANTA CRUZ BIOTECHNOLOGY, INC.

CD300LG siRNA (m): sc-142195

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The Power to Question

BACKGROUND

CD300LG (CD300 antigen-like family member G), also known as CLM9 (CMRF35-like molecule 9) or TREM4 (triggering receptor expressed on myeloid cells 4), is a 332 amino acid single-pass type I membrane protein that belongs to the CD300 family and exists as three alternatively spliced isoforms. CD300LG contains one Ig-like V-type (immunoglobulin-like) domain, which mediates binding to lymphocytes. As a receptor which could act to mediate L-selectin-dependent lymphocyte rollings, CD300LG is highly expressed in heart, skeletal muscle and placenta. The gene that encodes CD300LG consists of approximately 16,482 bases and maps to human chromosome 17q21.31. Comprising over 2.5% of the human genome, chromosome 17 consists of about 81 million bases, encodes over 1,200 genes and has the highest gene density in the genome. Chromosome 17 is also enriched in segmental duplications, ranking third in density among the autosomes.

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Cd300lg (mouse) mapping to 11 D.

PRODUCT

CD300LG 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CD300LG shRNA Plasmid (m): sc-142195-SH and CD300LG shRNA (m) Lentiviral Particles: sc-142195-V as alternate gene silencing products.

For independent verification of CD300LG (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-142195A, sc-142195B and sc-142195C.

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

CD300LG siRNA (m) is recommended for the inhibition of CD300LG 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 CD300LG gene expression knockdown using RT-PCR Primer: CD300LG (m)-PR: sc-142195-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.