

# CD209g siRNA (m): sc-142189

## BACKGROUND

Antigen-presenting cells are localized in essentially every tissue, where they operate at the interface of innate and acquired immunity by capturing pathogens and presenting pathogen-derived peptides to T cells. Dendritic cells capture antigens or viruses in peripheral tissue and transport them to lymphoid organs, an event that induces cellular T cell responses. The mouse CD209 family of cell adhesion receptors consists of CD209a (also known as DC-SIGN), CD209b, CD209c, CD209d, CD209e, CD209f and CD209g, all of which function to mediate the endocytosis and subsequent degradation of pathogens within lysosomal compartments. There are two human CD209 proteins, designated DC-SIGN and DC-SIGNR, which function in a similar manner to the mouse proteins.

## REFERENCES

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2. Geijtenbeek, T.B., et al. 2002. Marginal zone macrophages express a murine homologue of DC-SIGN that captures blood-borne antigens *in vivo*. *Blood* 100: 2908-2916.
3. Moris, A., et al. 2004. DC-SIGN promotes exogenous MHC-I-restricted HIV-1 antigen presentation. *Blood* 103: 2648-2654.
4. Cormier, E.G., et al. 2004. L-SIGN (CD209L) and DC-SIGN (CD209) mediate transinfection of liver cells by hepatitis C virus. *Proc. Natl. Acad. Sci. USA* 101: 14067-14072.
5. Weber, K.S., et al. 2004. Sialylation of ICAM-2 on platelets impairs adhesion of leukocytes via LFA-1 and DC-SIGN. *Inflammation* 28:177-188.
6. Sakuntabhai, A., et al. 2005. A variant in the CD209 promoter is associated with severity of dengue disease. *Nat. Genet.* 37: 507-513.
7. de la Rosa, G., et al. 2005. Regulated recruitment of DC-SIGN to cell-cell contact regions during zymosan-induced human dendritic cell aggregation. *J. Leukoc. Biol.* 77: 699-709.
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## CHROMOSOMAL LOCATION

Genetic locus: Cd209g (mouse) mapping to 8 A1.1.

## PRODUCT

CD209g 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CD209g shRNA Plasmid (m): sc-142189-SH and CD209g shRNA (m) Lentiviral Particles: sc-142189-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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

CD209g siRNA (m) is recommended for the inhibition of CD209g 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  $\mu$ M in 66  $\mu$ 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 CD209g gene expression knockdown using RT-PCR Primer: CD209g (m)-PR: sc-142189-PR (20  $\mu$ l). 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](http://www.scbt.com) for detailed protocols and support products.