SANTA CRUZ BIOTECHNOLOGY, INC.

SLAMF9 siRNA (h): sc-61559

BACKGROUND

Signaling lymphocyte-activation molecule (SLAM), also designated CDw150, is a novel receptor on T cells that, when engaged, potentiates T cell expansion in a CD28-independent manner. SLAM is expressed on B and T lymphocytes, dendritic cells and endothelial cells, and is thought to be a marker of activated B and T lymphocytes. SLAM family member 9 (SLAMF9), also designated CD2F-10 or CD84 homolog 1, is a 289 amino acid protein that shares 58% identity with the mouse protein. The SLAMF9 protein is predominantly expressed in hematopoietic tissues and contains a 19-residue signal peptide, an extracellular region with only two N-linked glycosylation sites, a 20-residue transmembrane region and a highly positively charged 30-residue cytoplasmic tail, suggesting a role for SLAMF9 as an adhesion molecule. SLAMF9 may function in the immune response as a coreceptor for lymphocyte activation.

REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608589. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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5. Veillette, A. 2004. SLAM family receptors regulate immunity with and without SAP-related adaptors. J. Exp. Med. 199: 1175-1178.
6. Kiel, M.J., Yilmaz, O.H., Iwashita, T., Yilmaz, O.H., Terhorst, C. and Morrison, S.J. 2005. SLAM family receptors reveal endothelial niches for stem cells. Cell 121: 1109-1121.

CHROMOSOMAL LOCATION

Genetic locus: SLAMF9 (human) mapping to 1q23.2.

PRODUCT

SLAMF9 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 SLAMF9 shRNA Plasmid (h): sc-61559-SH and SLAMF9 shRNA (h) Lentiviral Particles: sc-61559-V as alternate gene silencing products.

For independent verification of SLAMF9 (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-61559A, sc-61559B and sc-61559C.

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

SLAMF9 siRNA (h) is recommended for the inhibition of SLAMF9 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SLAMF9 gene expression knockdown using RT-PCR Primer: SLAMF9 (h)-PR: sc-61559-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.

PROTOCOLS

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