SANTA CRUZ BIOTECHNOLOGY, INC.

KIR3DL2 siRNA (h): sc-105598

BACKGROUND

The killer immunoglobulin-like receptors (KIRs) on natural killer (NK) cells regulate the inhibition and activation of NK-cell responses through recognition of human leukocyte antigen (HLA) class I molecules. KIR3DL1, a receptor for HLA-B antigens with the Bw4 allele, transmits an inhibitory signal to prevent killer cell-mediated cytoxicity. KIR3DL1 encodes a 444 amino acid type I transmembrane protein, containing three immunoglobulin-like C2-type domains. Human KIR3DL1 maps to chromosome 19q13.42.

REFERENCES

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2. Wende, H., et al. 1999. Organization of the leukocyte receptor cluster (LRC) on human chromosome 19q13.4. Mamm. Genome 10: 154-160.
3. Kwon, D., et al. 2000. Diversity of the p70 killer cell inhibitory receptor (KIR3DL) family members in a single individual. Mol. Cells 1: 54-60.
4. Martin, M.P., et al. 2002. Epistatic interaction between KIR3DS1 and HLA-B delays the progression to AIDS. Nat. Genet. 4: 429-434.
5. López-Vázquez, A., et al. 2005. Interaction between KIR3DL1 and HLA-B*57 supertype alleles influences the progression of HIV-1 infection in a Zambian population. Hum. Immunol. 66: 285-289.
6. Lopez-Larrea, C., et al. 2006. Contribution of KIR3DL1/3DS1 to ankylosing spondylitis in human leukocyte antigen-B27 Caucasian populations. Arthritis Res. Ther. 8: R101.
7. Thananchai, H., et al. 2007. Cutting edge: allele-specific and peptide-dependent interactions between KIR3DL1 and HLA-A and HLA-B. J. Immunol. 178: 33-37.
8. O'Connor, G.M., et al. 2007. Functional polymorphism of the KIR3DL1/S1 receptor on human NK cells. J. Immunol. 178: 235-241.
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CHROMOSOMAL LOCATION

Genetic locus: KIR3DL2 (human) mapping to 19q13.42.

PRODUCT

KIR3DL2 siRNA (h) is a pool of 2 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 KIR3DL2 shRNA Plasmid (h): sc-105598-SH and KIR3DL2 shRNA (h) Lentiviral Particles: sc-105598-V as alternate gene silencing products.

For independent verification of KIR3DL2 (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-105598A and sc-105598B.

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

KIR3DL2 siRNA (h) is recommended for the inhibition of KIR3DL2 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 KIR3DL2 gene expression knockdown using RT-PCR Primer: KIR3DL2 (h)-PR: sc-105598-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.