SANTA CRUZ BIOTECHNOLOGY, INC.

KIR3DL1/S1 siRNA (h): sc-106832

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 C_2-type domains. Human KIR3DL1/S1 maps to chromosome 19q13.4.

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: KIR3DL1/KIR3DS1 (human) mapping to 19q13.42.

PRODUCT

KIR3DL1/S1 siRNA (h) 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 KIR3DL1/S1 shRNA Plasmid (h): sc-106832-SH and KIR3DL1/S1 shRNA (h) Lentiviral Particles: sc-106832-V as alternate gene silencing products.

PROTOCOLS

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

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

KIR3DL1/S1 siRNA (h) is recommended for the inhibition of KIR3DL1/S1 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.

RESEARCH USE

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