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NKG2-C siRNA (m): sc-149992

BACKGROUND

The activity of natural killer (NK) cells is regulated by members of multiple receptor families that recognize class I MHC molecules, such as the killer cell inhibitory receptor/leukocyte immunoglobulin-like receptor (KIR/LIR) family and the C-type lectin superfamily. CD94, NKG2 and Ly-49 are members of the C-type lectin superfamily of type II membrane glycoproteins. NKG2-C, also known as killer cell lectin-like receptor subfamily C member 2 (KLRC2), belongs to the NKG2 family of genes. It forms a heterodimer with CD94 and through this interaction is then transported to the surface of NK cells. At the surface, the CD94/NKG2-C non-covalently associates with DAP12 for efficient expression. Upon binding of the receptor ligand HLA-E to the CD94/NKG2-C heterodimeric receptor, NK cell cytolytic activity is activated.

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CHROMOSOMAL LOCATION

Genetic locus: Klrc2 (mouse) mapping to 6 F3.

PRODUCT

NKG2-C 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NKG2-C shRNA Plasmid (m): sc-149992-SH and NKG2-C shRNA (m) Lentiviral Particles: sc-149992-V as alternate gene silencing 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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

NKG2-C siRNA (m) is recommended for the inhibition of NKG2-C 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 μ M in 66 μ 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 NKG2-C gene expression knockdown using RT-PCR Primer: NKG2-C (m)-PR: sc-149992-PR (20 μ l). 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.