

NK 2B4 siRNA (m): sc-42945

BACKGROUND

Natural killer (NK) cells are bone marrow-derived lymphocytes that can kill certain tumor cells and virally infected cells. There are multiple immunoglobulin superfamily (IgSF) receptor-ligand interactions that coordinate NK cell recognition of target cells and cytolytic function. The IgSF receptor NK 2B4 (CD244) is a ligand for CD48 that is expressed on the surface of all mouse and human NK cells and the subset of T cells that mediate NK-like killing. NK 2B4 is a cell surface glycoprotein of the immunoglobulin superfamily that is involved in the regulation of natural killer and T lymphocyte function. NK 2B4 binds the Src homology 2 domain-containing protein (SH2D1A) or signaling lymphocyte activation molecule (SLAM)-associated protein (SAP), which may function as regulators of NK 2B4-associated signal transduction pathways. NK 2B4 is expressed in human spleen, peripheral blood leukocytes, lymph node, bone marrow and fetal liver.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Cd244 (mouse) mapping to 1 H3.

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.

PRODUCT

NK 2B4 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NK 2B4 shRNA Plasmid (m): sc-42945-SH and NK 2B4 shRNA (m) Lentiviral Particles: sc-42945-V as alternate gene silencing products.

For independent verification of NK 2B4 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-42945A, sc-42945B and sc-42945C.

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

NK 2B4 siRNA (m) is recommended for the inhibition of NK 2B4 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 NK 2B4 gene expression knockdown using RT-PCR Primer: NK 2B4 (m)-PR: sc-42945-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.