SANTA CRUZ BIOTECHNOLOGY, INC.

CD99 siRNA (m): sc-142203

BACKGROUND

CD99, also known as D4 or PILR-L (paired immunoglobin-like type 2 receptor-ligand), is a 175 amino acid single-pass type I membrane protein that belongs to the CD99 family. Existing as a homodimer that interacts with PILR-β, CD99 is involved in lymphocyte transendothelial migration (TEM) and the recruitment of lymphocytes to inflamed skin. CD99 also plays a role in T cell adhesion, and in the generation of Hodgkin and Reed-Sternberg cells. High levels of CD99 can be found in lung, spleen, thymus, liver and spinal cord, as well as a wide range of T-cells. The gene encoding CD99 maps to mouse chromosome 4.

REFERENCES

1. Bixel, G., et al. 2004. Mouse CD99 participates in T-cell recruitment into inflamed skin. Blood 104: 3205-3213.
2. Shiratori, I., et al. 2004. Activation of natural killer cells and dendritic cells upon recognition of a novel CD99-like ligand by paired immunoglobulin-like type 2 receptor. J. Exp. Med. 199: 525-533.
3. Park, S.H., et al. 2005. Rapid divergency of rodent CD99 orthologs: implications for the evolution of the pseudoautosomal region. Gene 353: 177-188.
4. van Wanrooij, E.J., et al. 2008. Vaccination against CD99 inhibits atherogenesis in low-density lipoprotein receptor-deficient mice. Cardiovasc. Res. 78: 590-596.
5. Dufour, E.M., et al. 2008. CD99 is essential for leukocyte diapedesis *in vivo*. Cell Commun. Adhes. 15: 351-363.
6. Wang, J., et al. 2008. An essential role of sialylated O-linked sugar chains in the recognition of mouse CD99 by paired Ig-like type 2 receptor (PILR). J. Immunol. 180: 1686-1693.
7. Bixel, M.G., et al. 2010. CD99 and CD99L2 act at the same site as, but independently of, PECAM-1 during leukocyte diapedesis. Blood 116: 1172-1184.
8. Hong, J., et al. 2012. CD99 expression and newly diagnosed diffuse large B-cell lymphoma treated with rituximab-CHOP immunochemotherapy. Ann. Hematol. E-published.
9. Park, H.J., et al. 2012. CD99-dependent expansion of myeloid-derived suppressor cells and attenuation of graft-versus-host disease. Mol. Cells 33: 259-267.

CHROMOSOMAL LOCATION

Genetic locus: Cd99 (mouse) mapping to 4.

PRODUCT

CD99 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CD99 shRNA Plasmid (m): sc-142203-SH and CD99 shRNA (m) Lentiviral Particles: sc-142203-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 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

CD99 siRNA (m) is recommended for the inhibition of CD99 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 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 CD99 gene expression knockdown using RT-PCR Primer: CD99 (m)-PR: sc-142203-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.