

CD200R2 siRNA (m): sc-142182

BACKGROUND

CD200R2 (cell surface glycoprotein CD200 receptor 2), also known as CD200R1L (cell surface glycoprotein CD200 receptor 1-like), CD200RLa or cell surface glycoprotein OX2 receptor 2, is a 271 amino acid single-pass type I membrane protein that contains one Ig-like C2-type (immunoglobulin-like) domain and one Ig-like V-type (immunoglobulin-like) domain, and belongs to the CD200R family. Existing as two alternatively spliced isoforms, CD200R2 may be a receptor for the CD200/OX2 cell surface glycoprotein. The gene that encodes CD200R2 consists of approximately 31,148 bases and maps to human chromosome 3q13.2. Chromosome 3 houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Maho, A., Bensimon, A., Vassart, G. and Parmentier, M. 1999. Mapping of the CCXCR1, CX3CR1, CCR2 and CCR9 genes to the CCR cluster within the 3p21.3 region of the human genome. *Cytogenet. Cell Genet.* 87: 265-268.
2. Wright, G.J., Cherwinski, H., Foster-Cuevas, M., Brooke, G., Puklavec, M.J., Bigler, M., Song, Y., Jenmalm, M., Gorman, D., McClanahan, T., Liu, M.R., Brown, M.H., Sedgwick, J.D., Phillips, J.H. and Barclay, A.N. 2003. Characterization of the CD200 receptor family in mice and humans and their interactions with CD200. *J. Immunol.* 171: 3034-3046.
3. Braga, E.A., Kashuba, V.I., Maliukova, A.V., Loginov, V.I., Senchenko, V.N., Bazov, I.V., Kiselev, L.L. and Zabarovskii, E.R. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
4. Gorczynski, R.M., Chen, Z., Clark, D.A., Kai, Y., Lee, L., Nachman, J., Wong, S. and Marsden, P. 2004. Structural and functional heterogeneity in the CD200R family of immunoregulatory molecules and their expression at the feto-maternal interface. *Am. J. Reprod. Immunol.* 52: 147-163.
5. Voehringer, D., Rosen, D.B., Lanier, L.L. and Locksley, R.M. 2004. CD200 receptor family members represent novel DAP12-associated activating receptors on basophils and mast cells. *J. Biol. Chem.* 279: 54117-54123.
6. Yue, Y., Grossmann, B., Ferguson-Smith, M., Yang, F. and Haaf, T. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. *Genomics* 85: 36-47.
7. Minas, K. and Liversidge, J. 2006. Is the CD200/CD200 receptor interaction more than just a myeloid cell inhibitory signal? *Crit. Rev. Immunol.* 26: 213-230.

CHROMOSOMAL LOCATION

Genetic locus: Cd200r2 (mouse) mapping to 16 B4.

PROTOCOLS

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

PRODUCT

CD200R2 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 CD200R2 shRNA Plasmid (m): sc-142182-SH and CD200R2 shRNA (m) Lentiviral Particles: sc-142182-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

CD200R2 siRNA (m) is recommended for the inhibition of CD200R2 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 CD200R2 gene expression knockdown using RT-PCR Primer: CD200R2 (m)-PR: sc-142182-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.