SANTA CRUZ BIOTECHNOLOGY, INC.

CCXCKR siRNA (h): sc-60339

BACKGROUND

The C-C (β chemokine) G protein-coupled receptor family is characterized by a pair of adjacent cysteine residues. C-C chemokine receptor family members include CKR-1, CKR-2A, CKR-2B, CKR-3, CKR-4, CKR-5, CKR-6, CKR-7, CKR-8, CKR-9, CKR-10, CCXCKR, CCR-9, Bonzo, BOB (brother of Bonzo) and Duffy blood group antigen. Each of these receptors are G protein-coupled, seven pass transmembrane domain proteins whose major physiological role is to function in the chemotaxis of T cells and phagocytic cells to sites of inflammation. C-C chemokine receptor type 11 (CCXCKR, CCR-11 or CKR-11), acts as a receptor for CCL2, CCL8, CCL13, CCL19, CCL21 and CCL25. CCXCKR is predominantly expressed in heart tissue, but can also be detected in spleen, colon, pancreas, lung and small intestine.

REFERENCES

1. Gosling, J., Dairaghi, D.J., Wang, Y., Hanley, M., Talbot, D., Miao, Z. and Schall, T.J. 2000. Cutting edge: identification of a novel chemokine receptor that binds dendritic cell- and T cell-active chemokines including ELC, SLC and TECK. J. Immunol. 164: 2851-2856.
2. Khoja, H., Wang, G., Ng, C.T., Tucker, J., Brown, T. and Shyamala, V. 2000. Cloning of CCRL1, an orphan seven transmembrane receptor related to chemokine receptors, expressed abundantly in the heart. Gene 246: 229-238.
3. Schweickart, V.L., Epp, A., Raport, C.J. and Gray, P.W. 2000. CCR-11 is a functional receptor for the monocyte chemoattractant protein family of chemokines. J. Biol. Chem. 275: 9550-9556.
4. Townson, J.R. and Nibbs, R.J. 2002. Characterization of mouse CCXCKR, a receptor for the lymphocyte-attracting chemokines TECK/mCCL25, SLC/mCCL21 and MIP-3β/mCCL19: comparison to human CCXCKR. Eur. J. Immunol. 32: 1230-1241.
5. Comerford, I. and Nibbs, R.J. 2004. Post-translational control of chemokines: a role for decoy receptors? Immunol. Lett. 96: 163-174.

CHROMOSOMAL LOCATION

Genetic locus: CCRL1 (human) mapping to 3q22.1.

PRODUCT

CCXCKR siRNA (h) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CCXCKR shRNA Plasmid (h): sc-60339-SH and CCXCKR shRNA (h) Lentiviral Particles: sc-60339-V as alternate gene silencing products.

For independent verification of CCXCKR (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-60339A, sc-60339B and sc-60339C.

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

CCXCKR siRNA (h) is recommended for the inhibition of CCXCKR 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CCXCKR gene expression knockdown using RT-PCR Primer: CCXCKR (h)-PR: sc-60339-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.