SANTA CRUZ BIOTECHNOLOGY, INC.

Ccr1l1 siRNA (m): sc-142173

BACKGROUND

C-C or β chemokine family members are characterized by a pair of adjacent cysteine residues and serve as potent chemoattractants and activators of monocytes and T cells. C-C chemokine receptor family members include CKR-1, CKR-2A, CKR-2B, CKR-3, CKR-4, CKR-5, CKR-6, CKR-7, CKR-7, CKR-8, CKR-9, CKR-10 and the 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 areas of inflammation. Ccr1l1 (chemokine (C-C motif) receptor 1-like 1), also known as Cmkbr1l1, is a 356 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor 1 family. Probable receptor for a C-C type chemokine, Ccr1l1 is expressed in spleen, liver and leukocytes.

REFERENCES

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2. Deng, H., et al. 1996. Identification of a major co-receptor for primary isolates of HIV-1. Nature 381: 661-666.
3. Dragic, T., et al. 1996. HIV-1 entry into CD4+ cells is mediated by the chemokine receptor C-C CKR-5. Nature 381: 667-673.
4. Feng, Y., et al.1996. HIV-1 entry cofactor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. Science 272: 872-877.
5. Alkhatib, G., et al. 1996. C-C CKR-5: a RANTES, MIP-1, MIP-1 receptor as a fusion cofactor for macrophagetropic HIV-1. Science 272: 1955-1958.
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7. Bernardini, G., et al. 1998. Identification of the C-C chemokine TARC and macrophage inflammatory protein-1 β as novel functional ligands for the CCR-8 receptor. Eur. J. Immunol. 28: 582-588.
8. Napolitano, M., et al. 1999. Structure and function of the C-C chemokine receptor (CCR) 8. Forum 9: 315-324.

CHROMOSOMAL LOCATION

Genetic locus: Ccr1l1 (mouse) mapping to 9 F4.

PRODUCT

Ccr1l1 siRNA (m) is a pool of 2 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 Ccr1l1 shRNA Plasmid (m): sc-142173-SH and Ccr1l1 shRNA (m) Lentiviral Particles: sc-142173-V as alternate gene silencing products.

For independent verification of Ccr1l1 (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-142173A and sc-142173B.

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

Ccr1l1 siRNA (m) is recommended for the inhibition of Ccr1l1 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 Ccr1l1 gene expression knockdown using RT-PCR Primer: Ccr1l1 (m)-PR: sc-142173-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.