SANTA CRUZ BIOTECHNOLOGY, INC.

Chemokine Receptor D6 siRNA (m): sc-60338

BACKGROUND

Chemokine Receptor D6 (also designated Chemokine-binding protein 2, C-C Chemokine Receptor D6, CCR-9, CCR-10, and CMKBR9) is a member of the C-C (β chemokine) G protein-coupled receptor family. This family is characterized by a pair of adjacent cysteine residues. C-C chemokine receptor family members also include CKR-1, CKR-2A, CKR-2B, CKR-3, CKR-4, CKR-5, CKR-6, CKR-7, CKR-8, CKR-9, CKR-10, CCXCKR, 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. Chemokine Receptor D6 acts as a receptor for various C-C type chemokines, including SCYA2/MCP-1, SCY3/MIP-1-α, SCYA5/RANTES and SCYA7/MCP-3. It is expressed primarily in placental tissues and fetal liver, but is also detected in lymphatic endothelial cells, lymph nodes and mucosa of the small and large intestines.

REFERENCES

1. Nibbs, R.J., et al. 1997. Cloning and characterization of a novel promiscuous human β-Chemokine Receptor D6. J. Biol. Chem. 272: 32078-32083.
2. Bonini, J.A., et al. 1997. Cloning, expression, and chromosomal mapping of a novel human CC-chemokine receptor (CCR10) that displays high-affinity binding for MCP-1 and MCP-3. DNA Cell Biol. 16: 1249-1256.
3. Galliera, E., et al. 2004. β-Arrestin-dependent constitutive internalization of the human chemokine decoy receptor D6. J. Biol. Chem. 279: 25590-25597.
4. Martinez de la Torre, Y., et al. 2005. Increased inflammation in mice deficient for the chemokine decoy receptor D6. Eur. J. Immunol. 35: 1342-1346.
5. Jamieson, T., et al. 2005. The Chemokine Receptor D6 limits the inflammatory response *in vivo*. Nat. Immunol. 6: 403-411.
6. Comerford, I., et al. 2005. Post-translational control of chemokines: a role for decoy receptors? Immunol. Lett. 96: 163-174.

CHROMOSOMAL LOCATION

Genetic locus: Ackr2 (mouse) mapping to 9 F4.

PRODUCT

Chemokine Receptor D6 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Chemokine Receptor D6 shRNA Plasmid (m): sc-60338-SH and Chemokine Receptor D6 shRNA (m) Lentiviral Particles: sc-60338-V as alternate gene silencing products.

For independent verification of Chemokine Receptor D6 (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-60338A, sc-60338B and sc-60338C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

Chemokine Receptor D6 siRNA (m) is recommended for the inhibition of Chemokine Receptor D6 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.

GENE EXPRESSION MONITORING

Chemokine Receptor D6 (B-12): sc-365718 is recommended as a control antibody for monitoring of Chemokine Receptor D6 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Chemokine Receptor D6 gene expression knockdown using RT-PCR Primer: Chemokine Receptor D6 (m)-PR: sc-60338-PR (20 µl, 551 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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