SANTA CRUZ BIOTECHNOLOGY, INC.

CCL28 siRNA (h): sc-72144

BACKGROUND

CCL28 functions in chemotactic activity for resting CD4, CD8 T cells and eosinophils. CCL28, a secreted protein, binds to CCR3 and CCR10 (known previously as orphan G protein-coupled receptor GPR2) and induces calcium mobilization in a dose-dependent manner. CCL28 is preferentially expressed by epithelial cells of diverse tissues including normal and pathological colon, salivary gland, mammary gland, trachea and rectum.CCL28 belongs to the subfamily of small cytokine CC genes that encode proteins having two adjacent cysteines. Several alternative splice variants may exist.

REFERENCES

1. Wang, W., et al. 2000. Identification of a novel chemokine (CCL28), which binds CCR10 (GPR2). J. Biol. Chem. 275: 22313-22323.
2. Hieshima, K., et al. 2003. CCL28 has dual roles in mucosal immunity as a chemokine with broad-spectrum antimicrobial activity. J. Immunol. 170: 1452-1461.
3. Lazarus, N.H., et al. 2003. A common mucosal chemokine (mucosae-associated epithelial chemokine/CCL28) selectively attracts IgA plasmablasts. J. Immunol. 170: 3799-3805.
4. Wilson, E., et al. 2004. CCL28 controls immunoglobulin (Ig)A plasma cell accumulation in the lactating mammary gland and IgA antibody transfer to the neonate. J. Exp. Med. 200: 805-809.
5. Hanamoto, H., et al. 2004. Expression of CCL28 by Reed-Sternberg cells defines a major subtype of classical Hodgkin's disease with frequent infiltration of eosinophils and/or plasma cells. Am. J. Pathol. 164: 997-1006.
6. SWISS-PROT/TrEMBL (Q9NRJ3). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: CCL28 (human) mapping to 5p12.

PRODUCT

CCL28 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 CCL28 shRNA Plasmid (h): sc-72144-SH and CCL28 shRNA (h) Lentiviral Particles: sc-72144-V as alternate gene silencing products.

For independent verification of CCL28 (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-72144A, sc-72144B and sc-72144C.

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.

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

CCL28 siRNA (h) is recommended for the inhibition of CCL28 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 CCL28 gene expression knockdown using RT-PCR Primer: CCL28 (h)-PR: sc-72144-PR (20 µl, 424 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.