SANTA CRUZ BIOTECHNOLOGY, INC.

CCL27 siRNA (m): sc-39347

BACKGROUND

Cutaneous T cell-attracting chemokine, CCL27 (also designated CTACK, ILC and ALP), is a member of the chemokine superfamily and the subfamily of β or C-C chemokines that binds chemokine receptor CCR10 (GPR-2). Chemokines are a superfamily of small secreted proteins that attract their targets by interacting with G protein-coupled receptors expressed on the migrating cell. CCL27 and CCR10 are involved in skin homeostasis and inflammatory response. CCL27 is found in human keratinocytes and mouse epidermis; CCR10 is expressed by melanocytes, dermal fibroblasts and dermal microvascular endothelial cells and in T cells, as well as in skin-derived Langerhans cells. CCL27 is involved in the preferential migration and recruitment of cutaneous lymphocyte-associated antigen CLA^+ memory lymphocytes.

REFERENCES

1. Baggiolini, M. 1998. Chemokines and leukocyte traffic. Nature 392: 565-568.
2. Morales, J., et al. 1999. CTACK, a skin-associated chemokine that preferentially attracts skin-homing memory T cells. Proc. Natl. Acad. Sci. USA 96: 14470-14475.
3. Ishikawa-Mochizuki, I., et al. 1999. Molecular cloning of a novel C-C chemokine, interleukin-11 receptor α-locus chemokine (ILC), which is located on chromosome 9p13 and a potential homologue of a C-C chemokine encoded by molluscum contagiosum virus. FEBS Lett. 460: 544-548.
4. Hromas, R., et al. 1999. Isolation of ALP, a novel divergent murine C-C chemokine with a unique carboxy-terminal extension. Biochem. Biophys. Res. Commun. 258: 737-740.
5. Zlotnik, A., et al. 1999. Recent advances in chemokines and chemokine receptors. Crit. Rev. Immunol. 19: 1-47.
6. Homey, B., et al. 2000. Cutting edge: the orphan chemokine receptor G protein-coupled receptor-2 (GPR-2, CCR10) binds the skin-associated chemokine CCL27. J. Immunol. 164: 3465-3470.

CHROMOSOMAL LOCATION

Genetic locus: Ccl27 (mouse) mapping to 4 A5.

PRODUCT

CCL27 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 CCL27 shRNA Plasmid (m): sc-39347-SH and CCL27 shRNA (m) Lentiviral Particles: sc-39347-V as alternate gene silencing products.

For independent verification of CCL27 (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-39347A, sc-39347B and sc-39347C.

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

CCL27 siRNA (m) is recommended for the inhibition of CCL27 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

CCL27 (G-6): sc-390112 is recommended as a control antibody for monitoring of CCL27 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.

SELECT PRODUCT CITATIONS

1. Chakrabarti, S.K., et al. 2011. Evidence for activation of inflammatory lipoxygenase pathways in visceral adipose tissue of obese Zucker rats. Am. J. Physiol. Endocrinol. Metab. 300: E175-E187.

RESEARCH USE

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