I-309 siRNA (h): sc-39354



The Power to Question

BACKGROUND

Structurally, C-C or β -chemokines are characterized by a set of conserved, adjacent cysteines. Members of this family include MCP-1, MCP-2, MCP-3, MIP-1 α , MIP-1 β , RANTES and I-309. RANTES (regulated upon activation, normal T cell expressed and secreted) is expressed by platelets, eosinophils, fibroblasts, macrophages, endothelial cells and T lymphocytes. Consistent with its belonging to the chemokine family, RANTES exhibits strong chemoattractant activity towards monocytes and NK cells. I-309 was initially identified as a factor present in γ/δ T lymphocytes. I-309 cDNA encodes a protein 73 amino acids in length with one potential N-linked glycosylation site Unlike the other members of the C-C family, I-309 does not induce chemotaxis in natural killer (NK) cells.

REFERENCES

- Miller, M.D., Hata, S., De Waal Malefyt, R. and Krangel, M.S. 1989. A novel polypeptide secreted by activated human T lymphocytes. J. Immunol. 143: 2907-2916.
- Lloyd, A.R., Oppenheim, J.J., Kelvin, D.J. and Taub, D.D. 1996. Chemokines regulate T cell adherence to recombinant adhesion molecules and extracellular matrix proteins. J. Immunol. 156: 932-938.
- Wells, T.N., Power, C.A., Lusti-Narasimhan, M., Hoogewerf, A.J., Cooke, R.M., Chung, C.W., Peitsch, M.C. and Proudfoot, A.E. 1996. Selectivity and antagonism of chemokine receptors. J. Leukoc. Biol. 59: 53-60.
- 4. Taub, D.D., Ortaldo, J.R., Turcovski-Corrales, S.M., Key, M.L., Longo, D.L. and Murphy, W.J. 1996. β chemokines costimulate lymphocyte cytolysis, proliferation and lymphokine production. J. Leukoc. Biol. 59: 81-89.
- Wang, J.H., Devalia, J.L., Xia, C., Sapsford, R.J. and Davies, R.J. 1996. Expression of RANTES by human bronchial epithelial cells in vitro and in vivo and the effect of corticosteroids. Am. J. Respir. Cell Mol. Biol. 14: 27-35.
- Ying, S., Meng, Q., Taborda-Barata, L., Corrigan, C.J., Barkans, J., Assoufi, B., Moqbel, R., Durham, S.R. and Kay, A.B. 1996. Human eosinophils express messenger RNA encoding RANTES and store and release biologically active RANTES protein. Eur. J. Immunol. 26: 70-76.
- Loetscher, P., Seitz, M., Clark-Lewis, I., Baggiolini, M. and Moser, B. 1996. Activation of NK cells by C-C chemokines. Chemotaxis, Ca²⁺ mobilization and enzyme release. J. Immunol. 156: 322-327.

CHROMOSOMAL LOCATION

Genetic locus: CCL1 (human) mapping to 17q12.

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.

PRODUCT

I-309 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see I-309 shRNA Plasmid (h): sc-39354-SH and I-309 shRNA (h) Lentiviral Particles: sc-39354-V as alternate gene silencing products.

For independent verification of I-309 (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-39354A, sc-39354B and sc-39354C.

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 μ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNAse-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

I-309 siRNA (h) is recommended for the inhibition of I-309 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 I-309 gene expression knockdown using RT-PCR Primer: I-309 (h)-PR: sc-39354-PR (20 μ I). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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