

C10 siRNA (r): sc-270617

BACKGROUND

C10 is a member of the β -chemokine family of cytokines. These chemoattractants are typically produced by activated macrophages or lymphocytes, and usually contain a genomic structure including three exons. C10, however, contains four exons, and is regulated differentially from the typical cytokine family members. This additional exon encodes a portion of the protein thought to define the predominant epitope and to play a significant role in the recognition and activation of chemokine receptors.

REFERENCES

- Orlowsky, A., Berger, M.S. and Prystowsky, M.B. 1991. Novel expression pattern of a new member of the MIP-1 family of cytokine-like genes. *Cell Regul.* 2: 403-412.
- Berger, M.S., Kozak, C.A., Gabriel, A. and Prystowsky, M.B. 1993. The gene for C10, a member of the β -chemokine family, is located on mouse chromosome 11 and contains a novel second exon not found in other chemokines. *DNA Cell Biol.* 12: 839-847.
- Orlowsky, A., Lin, E.Y. and Prystowsky, M.B. 1994. Selective induction of the β chemokine C10 by IL-4 in mouse macrophages. *J. Immunol.* 152: 5084-5091.
- Xu, L.L., Warren, M.K., Rose, W.L., Gong, W. and Wang, J.M. 1996. Human recombinant monocyte chemotactic protein and other C-C chemokines bind and induce directional migration of dendritic cells *in vitro*. *J. Leukoc. Biol.* 60: 365-371.
- Berger, M.S., Taub, D.D., Orlowsky, A., Kleyman, T.R., Coupaye-Gerald, B., Eisner, D. and Cohen, S.A. 1996. The chemokine C10: immunological and functional analysis of the sequence encoded by the second novel exon. *Cytokine* 8:439-447.
- Cho, Y.Y., Astgen, A., Hendel, H., Issing, W., Perrot, J.Y., Schachter, F., Rappaport, J. and Zagury, J.F. 1997. Homeostasis of chemokines, interferon production and lymphocyte subsets: implications for AIDS pathogenesis. *Biomed. Pharmacother.* 51: 221-229.

CHROMOSOMAL LOCATION

Genetic locus: Ccl6 (rat) mapping to 10q26.

PRODUCT

C10 siRNA (r) is a target-specific 19-25 nt siRNA 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 C10 shRNA Plasmid (r): sc-270617-SH and C10 shRNA (r) Lentiviral Particles: sc-270617-V as alternate gene silencing products.

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 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

C10 siRNA (r) is recommended for the inhibition of C10 expression in rat 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 μ M in 66 μ l. 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 C10 gene expression knockdown using RT-PCR Primer: C10 (r)-PR: sc-270617-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.