SANTA CRUZ BIOTECHNOLOGY, INC.

# I-TAC siRNA (h): sc-45530

## BACKGROUND

IFN-inducible T cell α chemoattractant (I-TAC), also designated βR1, H174, SCYB9B, Scyb11 (mouse), IP-9 or CXCL11, is a member of the CXC chemokine family and is expressed in IFN-γ-treated astrocytes, monocytes, keratinocytes, bronchial epithelial cells and neutrophils. The gene encoding I-TAC maps to human chromosome 4q21.1. I-TAC and two related proteins, IFN-induced protein of 10 kDa (IP-10) and monokine induced by IFN-γ (MIG), belong to the non-glutamate-leucine-arginine motif CXC chemokine family and act solely through the CXCR-3 receptor for potent attraction of T lymphocytes. I-TAC is assumed to be involved in inflammatory diseases characterized by the presence of activated T cells.

## REFERENCES


1. Mach, F., Sauty, A., Iarossi, A.S., Sukhova, G.K., Neote, K., Libby, P. and Luster, A.D. 1999. Differential expression of three T lymphocyte-activating CXC chemokines by human atheroma-associated cells. J. Clin. Invest. 104: 1041-1050.
2. Tensen, C.P., Flier, J., Rampersad, S.S., Sampat-Sardjoepersad, S., Scheper, R.J., Boorsma, D.M. and Willemze, R. 1999. Genomic organization, sequence and transcriptional regulation of the human CXCL11[1] gene. Biochim. Biophys. Acta 1446: 167-172.
3. Meyer, M., Erdel, M., Duba, H.C., Werner, E.R. and Werner-Felmayer, G. 2000. Cloning, genomic sequence and chromosome mapping of Scyb11, the murine homologue of SCYB11 (alias βR1/H174/SCYB9B/I-TAC/IP-9/CXCL11). Cytogenet. Cell Genet. 88: 278-282.
4. Mazanet, M.M., Neote, K. and Hughes, C.C. 2000. Expression of IFN-inducible T cell α chemoattractant by human endothelial cells is cyclosporin A-resistant and promotes T cell adhesion: implications for cyclosporin A-resistant immune inflammation. J. Immunol. 164: 5383-5388.
5. Albanesi, C., Scarponi, C., Sebastiani, S., Cavani, A., Federici, M., De Pita, O., Puddu, P. and Girolomoni, G. 2000. IL-4 enhances keratinocyte expression of CXCR-3 agonistic chemokines. J. Immunol. 165: 1395-1402.


## CHROMOSOMAL LOCATION

Genetic locus: CXCL11 (human) mapping to 4q21.1.

## PRODUCT

I-TAC 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 I-TAC shRNA Plasmid (h): sc-45530-SH and I-TAC shRNA (h) Lentiviral Particles: sc-45530-V as alternate gene silencing products.

For independent verification of I-TAC (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-45530A, sc-45530B and sc-45530C.

## 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

I-TAC siRNA (h) is recommended for the inhibition of I-TAC 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-TAC gene expression knockdown using RT-PCR Primer: I-TAC (h)-PR: sc-45530-PR (20 µl). 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.