



CD5L siRNA (h): sc-88774

BACKGROUND

CD5L (CD5 molecule-like), also known as API6, PRO229, Sp α or SP-ALPHA, is a 347 amino acid secreted protein that belongs to the scavenger receptor cysteine-rich (SRCR) family of leukocyte regulating proteins. Expressed in bone marrow, spleen, thymus, lymph node and fetal liver, CD5L is thought to be involved in regulating the immune system via binding to peripheral monocytes and mediating their activation and overall survival. CD5L has three cysteine-rich domains and, in addition to its role in the immune system, may function to inhibit apoptosis and promote macrophage survival.

REFERENCES

1. Gebe, J.A., Kiener, P.A., Ring, H.Z., Li, X., Francke, U. and Aruffo, A. 1997. Molecular cloning, mapping to human chromosome 1q21-q23, and cell binding characteristics of Sp α , a new member of the scavenger receptor cysteine-rich (SRCR) family of proteins. *J. Biol. Chem.* 272: 6151-6158.
2. Bikah, G., Lynd, F.M., Aruffo, A.A., Ledbetter, J.A. and Bondada, S. 1998. A role for CD5 in cognate interactions between T cells and B cells, and identification of a novel ligand for CD5. *Int. Immunol.* 10: 1185-1196.
3. Tissot, J.D., Sanchez, J.C., Vuadens, F., Scherl, A., Schifferli, J.A., Hochstrasser, D.F., Schneider, P. and Duchosal, M.A. 2002. IgM are associated to Sp α (CD5 antigen-like). *Electrophoresis* 23: 1203-1206.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602592. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Sarrias, M.R., Roselló, S., Sánchez-Barbero, F., Sierra, J.M., Vila, J., Yélamos, J., Vives, J., Casals, C. and Lozano, F. 2005. A role for human Sp α as a pattern recognition receptor. *J. Biol. Chem.* 280: 35391-35398.
6. Arai, S., Shelton, J.M., Chen, M., Bradley, M.N., Castrillo, A., Bookout, A.L., Mak, P.A., Edwards, P.A., Mangelsdorf, D.J., Tontonoz, P. and Miyazaki, T. 2005. A role for the apoptosis inhibitory factor AIM/Sp α /Api6 in atherosclerosis development. *Cell Metab.* 1: 201-213.

CHROMOSOMAL LOCATION

Genetic locus: CD5L (human) mapping to 1q23.1.

PRODUCT

CD5L 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 CD5L shRNA Plasmid (h): sc-88774-SH and CD5L shRNA (h) Lentiviral Particles: sc-88774-V as alternate gene silencing products.

For independent verification of CD5L (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-88774A, sc-88774B and sc-88774C.

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

CD5L siRNA (h) is recommended for the inhibition of CD5L 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 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.

GENE EXPRESSION MONITORING

CD5L (F-1): sc-514283 is recommended as a control antibody for monitoring of CD5L 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CD5L gene expression knockdown using RT-PCR Primer: CD5L (h)-PR: sc-88774-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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