SANTA CRUZ BIOTECHNOLOGY, INC.

BLC siRNA (h): sc-39344

BACKGROUND

BLC, also known as SCYB13, BCA1 or CXCL13 (C-X-C motif chemokine 13), is a 109 amino acid protein that belongs to the intercrine α (chemokine CXC) family. BLC is a secreted protein with highest levels expressed in liver, followed by spleen, lymph node, appendix and stomach. Low levels of BLC are found in salivary gland, mammary gland and fetal spleen. BLC is required for the architectural organization of B cells within lymphoid follicles, apparently by stimulating calcium influx into, and chemotaxis of, cells expressing Burkitt's lymphoma receptor 1 (BLR-1). Chemokines constitute a family of small (approximately 8 to 14 kDa) chemotactic cytokines that direct the migration of leukocytes during inflammation and may be involved in the constitutive homing of lymphocytes into follicles and T-cell zones. Chemokines act through interactions with a subset of seven transmembrane G protein-coupled receptors.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 605149. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. King, M., et al. 2009. CXCL13 expression in *Chlamydia trachomatis* infection of the female reproductive tract. Drugs Today 45: 125-134.
3. Rupprecht, T.A., et al. 2009. The chemokine CXCL13 is a key regulator of B cell recruitment to the cerebrospinal fluid in acute Lyme neuroborreliosis. J. Neuroinflammation 6: 42.
4. Sellebjerg, F., et al. 2009. Increased cerebrospinal fluid concentrations of the chemokine CXCL13 in active MS. Neurology 73: 2003-2010.
5. Patadia, M., et al. 2010. Evaluation of the presence of B-cell attractant chemokines in chronic rhinosinusitis. Am. J. Rhinol. Allergy 24: 11-16.
6. Shiao, Y.M., et al. 2010. Ectopic and high CXCL13 chemokine expression in myasthenia gravis with thymic lymphoid hyperplasia. J. Neuroimmunol. 221: 101-106.
7. Weiss, N., et al. 2010. IL8 and CXCL13 are potent chemokines for the recruitment of human neural precursor cells across brain endothelial cells. J. Neuroimmunol. 223: 131-134.

CHROMOSOMAL LOCATION

Genetic locus: CXCL13 (human) mapping to 4q21.1.

PRODUCT

BLC 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 BLC shRNA Plasmid (h): sc-39344-SH and BLC shRNA (h) Lentiviral Particles: sc-39344-V as alternate gene silencing products.

For independent verification of BLC (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-39344A, sc-39344B and sc-39344C.

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

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

GENE EXPRESSION MONITORING

BLC (946): sc-73740 is recommended as a control antibody for monitoring of BLC 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor BLC gene expression knockdown using RT-PCR Primer: BLC (h)-PR: sc-39344-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Fan, L., et al. 2017. CXCL13 is androgen-responsive and involved in androgen induced prostate cancer cell migration and invasion. Oncotarget 8: 53244-53261.

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.