SANTA CRUZ BIOTECHNOLOGY, INC.

COLEC11 siRNA (h): sc-94909

BACKGROUND

COLEC11 (collectin subfamily member 11), also known as CLK1, CL-K1-I, MGC3279, CL-K1-II, CL-K1-IIa or CL-K1-IIb, is a 270 amino acid C-type lectin protein that contains a collagen-like domain and a carbohydrate recognition domain, and plays an important role in host-defense. COLEC11 binds to various sugars and LPS (lipopolysaccharides), which include fucose but does not bind to glucose, hnRNP, β-1,3-Gal-T3 or mannose. COLEC11 is ubiquitously expressed in most tissues with high expression in kidney, liver, fetal liver, small intestine, thymus, spinal cord, placenta, adrenal gland, pancreas and several cell lines. COLEC11 is a secreted protein and all alternatively spliced isoforms of COLEC11 have oligomeric structures created through disulfide bonding.

REFERENCES

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2. Keshi, H., et al. 2006. Identification and characterization of a novel human collectin CL-K1. Microbiol. Immunol. 50: 1001-1013.
3. Nieländer, I., et al. 2007. Combining array-based approaches for the identification of candidate tumor suppressor loci in mature lymphoid neoplasms. APMIS 115: 1107-1134.
4. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612502. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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6. Kelley, J.M., et al. 2010. Pathways: strategies for susceptibility genes in SLE. Autoimmun. Rev. 9: 473-476.
7. Hsu, Y.H., et al. 2010. An integration of genome-wide association study and gene expression profiling to prioritize the discovery of novel susceptibility loci for osteoporosis-related traits. PLoS Genet. 6: e1000977.

CHROMOSOMAL LOCATION

Genetic locus: COLEC11 (human) mapping to 2p25.3.

PRODUCT

COLEC11 siRNA (h) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see COLEC11 shRNA Plasmid (h): sc-94909-SH and COLEC11 shRNA (h) Lentiviral Particles: sc-94909-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 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

COLEC11 siRNA (h) is recommended for the inhibition of COLEC11 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 COLEC11 gene expression knockdown using RT-PCR Primer: COLEC11 (h)-PR: sc-94909-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.