SANTA CRUZ BIOTECHNOLOGY, INC.

COLEC10 siRNA (h): sc-77579

BACKGROUND

COLEC10 (Collectin-34 or Collectin liver protein 1) is a member of the C-lectin COLEC10/COLEC11 family. The COLEC10 protein, which has a C-type lectin domain and a collagen-like domain, is a secreted and cytoplasmic protein that binds to a number of sugars. COLEC10 is a serum circulating mannose-binding lectin which likely functions as part of the innate immune system. COLEC10 is expressed at varying levels depending on the tissue. COLEC10 is highly expressed in liver, placenta and adrenal gland, while moderately to weakly expressed in small intestine, lung, stomach, prostate, trachea and spleen.

REFERENCES

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2. Kawai, T., et al. 2002. Molecular cloning of mouse collectin liver 1. Biosci. Biotechnol. Biochem. 66: 2134-2145.
3. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. Genome Res. 13: 2265-2270.
4. Wakamiya, N., et al. 2004. Collectin family as a host defense lectin. Hokkaido Igaku Zasshi 79: 3-7.
5. Donders, G.G., et al. 2008. Mannose-binding lectin gene polymorphism and resistance to therapy in women with recurrent vulvovaginal candidiasis. BJOG 115: 1225-1231.
6. Dumestre-Pérard, C., et al. 2008. *Aspergillus conidia* activate the complement by the mannan-binding lectin C2 bypass mechanism. J. Immunol. 181: 7100-7105.
7. Held, K., et al. 2008. Increased susceptibility of complement factor B/C2 double knockout mice and mannan-binding lectin knockout mice to systemic infection with *Candida albicans*. Mol. Immunol. 45: 3934-3941.
8. Ampel, N.M., et al. 2008. Mannose-binding lectin serum levels are low in persons with clinically active coccidioidomycosis. Mycopathologia 167: 173-180.

CHROMOSOMAL LOCATION

Genetic locus: COLEC10 (human) mapping to 8q24.12.

PRODUCT

COLEC10 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 COLEC10 shRNA Plasmid (h): sc-77579-SH and COLEC10 shRNA (h) Lentiviral Particles: sc-77579-V as alternate gene silencing products.

For independent verification of COLEC10 (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-77579A, sc-77579B and sc-77579C.

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

COLEC10 siRNA (h) is recommended for the inhibition of COLEC10 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 COLEC10 gene expression knockdown using RT-PCR Primer: COLEC10 (h)-PR: sc-77579-PR (20 µl). 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.