SANTA CRUZ BIOTECHNOLOGY, INC.

CLEC-10A siRNA (h): sc-94237

BACKGROUND

CLEC-10A (C-type lectin domain family 10, member A), also known as macrophage galactose and N-acetylgalactosamine-specific lectin (MGL), macrophage asialoglycoprotein-binding protein (M-ASGP-BP) or macrophage galactose/N-acetylgalactosamine-specific lectin), is a protein with galactose-binding activity and with sugar-binding specificity that is the same as that of the native lectin. CLEC-10A serves as a unique macrophage marker in mouse lung tissue due to its topographical site-dependent pattern of expression. Additionally, the most intense signal is observed in the extract from skin, suggesting that cells expressing this lectin are abundant in skin. CLEC-10A may also participate in the binding of the macrophages to tumor cells. Cells which stain positively for CLEC-10A are distributed in the connective tissue and in the interstice, particularly the dermis and subcutaneous layer of skin.

REFERENCES

1. Oda, S., et al. 1989. Binding of activated macrophages to tumor cells through a macrophage lectin and its role in macrophage tumoricidal activity. J. Biochem. 105: 1040-1043.
2. Ii, M., et al. 1990. Molecular cloning and sequence analysis of cDNA encoding the macrophage lectin specific for galactose and N-acetylgalactosamine. J. Biol. Chem. 265: 11295-11298.
3. Sato, M., et al. 1992. Molecular cloning and expression of cDNA encoding a galactose/N-acetylgalactosamine-specific lectin on mouse tumoricidal macrophages. J. Biochem. 111: 331-336.
4. Kimura, T., et al. 1995. Calcium-dependent conformation of a mouse macrophage calcium-type lectin. Carbohydrate binding activity is stabilized by an antibody specific for a calcium-dependent epitope. J. Biol. Chem. 270: 16056-16062.
5. Imai, Y., et al. 1995. Restricted expression of galactose/N-acetylgalactosamine-specific macrophage C-type lectin to connective tissue and to metastatic lesions in mouse lung. Immunology 86: 591-598.
6. Mizuochi, S., et al. 1997. Unique tissue distribution of a mouse macrophage C-type lectin. Glycobiology 7: 137-146.

CHROMOSOMAL LOCATION

Genetic locus: CLEC10A (human) mapping to 17p13.1.

PRODUCT

CLEC-10A 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 CLEC-10A shRNA Plasmid (h): sc-94237-SH and CLEC-10A shRNA (h) Lentiviral Particles: sc-94237-V as alternate gene silencing products.

For independent verification of CLEC-10A (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-94237A, sc-94237B and sc-94237C.

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

CLEC-10A siRNA (h) is recommended for the inhibition of CLEC-10A 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 CLEC-10A gene expression knockdown using RT-PCR Primer: CLEC-10A (h)-PR: sc-94237-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.