SANTA CRUZ BIOTECHNOLOGY, INC.

LECT2 siRNA (h): sc-60928

BACKGROUND

Leukocyte cell-derived chemotaxin 2 (LECT2) is a secreted protein with a neutrophil chemotactic activity. LECT2 is highly expressed in liver and shows diffuse immunostaining within the cytoplasm of hepatocytes. The LECT2 protein consists of 133 amino acids and three intramolecular disulfide bonds, and homologues of LECT2 have been widely identified in many vertebrates. LECT2 has a multifunctional role that extends from cell growth, differentiation, damage/repair process and carcinogenesis to autoimmune diseases. LECT2 expression is specifically induced in liver by β-catenin signaling. Serum LECT2 levels have been shown to increase in response to liver recovery, suggesting LECT2 may be used as a prognostic indicator.

REFERENCES

1. Kishimoto, H., et al. 1976. Anomalous origin of of a successful corrective surgery. Nippon Kyobu Geka Gakkai Zasshi 24: 1519-1527.
2. Yamagoe, S., et al. 1998. Molecular cloning, structural characterization, and chromosomal mapping of the human LECT2 gene. Genomics 48: 324-329.
3. Yamagoe, S., et al. 1998. The mouse LECT2 gene: cloning of cDNA and genomic DNA, structural characterization and chromosomal localization. Gene 216: 171-178.
4. Uchida, T., et al. 1999. Expression pattern of a newly recognized protein, LECT2, in hepatocellular carcinoma and its premalignant lesion. Pathol. Int. 49: 147-151.

CHROMOSOMAL LOCATION

Genetic locus: LECT2 (human) mapping to 5q31.1.

PRODUCT

LECT2 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 LECT2 shRNA Plasmid (h): sc-60928-SH and LECT2 shRNA (h) Lentiviral Particles: sc-60928-V as alternate gene silencing products.

For independent verification of LECT2 (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-60928A, sc-60928B and sc-60928C.

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

LECT2 siRNA (h) is recommended for the inhibition of LECT2 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

LECT2 (B-6): sc-398071 is recommended as a control antibody for monitoring of LECT2 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 LECT2 gene expression knockdown using RT-PCR Primer: LECT2 (h)-PR: sc-60928-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. Hwang, H.J., et al. 2015. A dipeptidyl peptidase-IV inhibitor improves hepatic steatosis and Insulin resistance by AMPK-dependent and JNK-dependent inhibition of LECT2 expression. Biochem. Pharmacol. 98: 157-166.

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.