SANTA CRUZ BIOTECHNOLOGY, INC.

Intelectin-1 siRNA (h): sc-88542

BACKGROUND

Intelectin-1, also known as ITLN1, INTL, Omentin or LFR, is a 313 amino acid protein that contains one fibrinogen C-terminal domain and is both secreted and lipid-anchored to the cell membrane. Highly expressed in small intestine and adipose tissue and present at lower levels in testis, heart, pancreas, colon and skeletal muscle, Intelectin-1 exists as a disulfide-linked homotrimer that functions to enhance Insulin-stimulated glucose uptake and is also thought to participate in host defense against microorganisms. In addition to its roles in glucose regulation and immune system function, Intelectin-1 may also be involved in iron metabolism and obesity regulation in adults. Human Intelectin-1 shares 81% sequence identity with its mouse counterpart, suggesting a conserved role between species.

REFERENCES

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3. Suzuki, Y.A., et al. 2005. Mammalian lactoferrin receptors: structure and function. Cell. Mol. Life Sci. 62: 2560-2575.
4. Wali, A., et al. 2005. Identification of intelectin overexpression in malignant pleural mesothelioma by serial analysis of gene expression (SAGE). Lung Cancer 48: 19-29.
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6. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609873. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: ITLN1 (human) mapping to 1q23.3.

PRODUCT

Intelectin-1 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 Intelectin-1 shRNA Plasmid (h): sc-88542-SH and Intelectin-1 shRNA (h) Lentiviral Particles: sc-88542-V as alternate gene silencing products.

For independent verification of Intelectin-1 (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-88542A, sc-88542B and sc-88542C.

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

Intelectin-1 siRNA (h) is recommended for the inhibition of Intelectin-1 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

Intelectin-1/2 (3G1B3): sc-130923 is recommended as a control antibody for monitoring of Intelectin-1 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 Intelectin-1 gene expression knockdown using RT-PCR Primer: Intelectin-1 (h)-PR: sc-88542-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.