

resistin-like β siRNA (m): sc-152817

BACKGROUND

The cysteine-rich, adipose tissue-specific, secretory factor resistin (resistance to Insulin, also known as ADSF) is a secreted hormone that potentially links obesity to diabetes. Resistin is rich in serine and cysteine residues and contains a unique cysteine repeat motif. Resistin and the resistin-like molecules share the characteristic cysteine composition and other signature features. Resistin-like α is a secreted protein that has restricted tissue distribution and is most highly expressed in adipose tissue. Another family member, resistin-like β , is a secreted protein expressed only in the gastrointestinal tract, particularly in the colon, in both mouse and human. Resistin-like β expression is highest in proliferative epithelial cells and is markedly increased in tumors, suggesting a role in intestinal proliferation.

REFERENCES

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4. Steppan, C.M., et al. 2001. The hormone resistin links obesity to diabetes. *Nature* 409: 307-312.
5. Steppan, C.M., et al. 2001. A family of tissue-specific resistin-like molecules. *Proc. Natl. Acad. Sci. USA* 98: 502-506.
6. Vendrell, J., et al. 2004. Resistin, adiponectin, ghrelin, leptin, and pro-inflammatory cytokines: relationships in obesity. *Obes. Res.* 12: 962-971.
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8. Patel, S.D., et al. 2004. Disulfide-dependent multimeric assembly of resistin family hormones. *Science* 304: 1154-1158.
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CHROMOSOMAL LOCATION

Genetic locus: Retnlb (mouse) mapping to 16 B5.

PRODUCT

resistin-like β siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see resistin-like β shRNA Plasmid (m): sc-152817-SH and resistin-like β shRNA (m) Lentiviral Particles: sc-152817-V as alternate gene silencing products.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

resistin-like β siRNA (m) is recommended for the inhibition of resistin-like β expression in mouse 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 μ M in 66 μ l. 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

resistin-like β (H-8): sc-398922 is recommended as a control antibody for monitoring of resistin-like β 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 resistin-like β gene expression knockdown using RT-PCR Primer: resistin-like β (m)-PR: sc-152817-PR (20 μ l). 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.