

resistin siRNA (h): sc-39722

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

1. Kim, K.H., et al. 2001. A cysteine-rich adipose tissue-specific secretory factor inhibits adipocyte differentiation. *J. Biol. Chem.* 276: 11252-11256.
2. Flier, J.S. 2001. Diabetes. The missing link with obesity? *Nature* 409: 292-293.
3. Steppan, C.M., et al. 2001. The hormone resistin links obesity to diabetes. *Nature* 409: 307-312.
4. Steppan, C.M., et al. 2001. A family of tissue-specific resistin-like molecules. *Proc. Natl. Acad. Sci. USA* 98: 502-506.
5. Vendrell, J., et al. 2004. Resistin, adiponectin, ghrelin, leptin, and proinflammatory cytokines: relationships in obesity. *Obes. Res.* 12: 962-971.
6. Patel, S.D., et al. 2004. Disulfide-dependent multimeric assembly of resistin family hormones. *Science* 304: 1154-1158.
7. Steppan, C.M., et al. 2004. The current biology of resistin. *J. Intern. Med.* 255: 439-447.

CHROMOSOMAL LOCATION

Genetic locus: RETN (human) mapping to 19p13.2.

PRODUCT

resistin siRNA (h) 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 shRNA Plasmid (h): sc-39722-SH and resistin shRNA (h) Lentiviral Particles: sc-39722-V as alternate gene silencing 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 siRNA (h) is recommended for the inhibition of resistin 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 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 (C-10): sc-376336 is recommended as a control antibody for monitoring of resistin 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.

PROTOCOLS

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