

TSC-36 siRNA (r): sc-270458

BACKGROUND

TSC-36 (also known as TGF- β 1-stimulated clone 36, or FRP (follistatin-related protein 1) is a secreted extracellular glycoprotein. The amino acid sequence of TSC-36 is similar to follistatin, an inhibitor of activin, as it contains a follistatin module. TSC-36 is a heparin-binding protein suggested to have a role in the negative regulation of cellular growth, as its expression is induced in response to TGF- β 1. In addition, TSC-36 is not found in small cell lung cancer (SCLC) cells, a highly aggressive neoplasm, but is detected in some non-small cell lung cancer (NSCLC) cells, a moderately aggressive neoplasm.

REFERENCES

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6. Sumitomo, K., Kurisaki, A., Yamakawa, N., Tsuchida, K., Shimizu, E., Sone, S. and Sugino, H. 2000. Expression of a TGF- β 1 inducible gene, TSC-36, causes growth inhibition in human lung cancer cell lines. *Cancer Letts.* 155: 37-46.

CHROMOSOMAL LOCATION

Genetic locus: Fstl1 (rat) mapping to 11q21.

PRODUCT

TSC-36 siRNA (r) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TSC-36 shRNA Plasmid (r): sc-270458-SH and TSC-36 shRNA (r) Lentiviral Particles: sc-270458-V as alternate gene silencing products.

For independent verification of TSC-36 (r) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-270458A, sc-270458B and sc-270458C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

TSC-36 siRNA (r) is recommended for the inhibition of TSC-36 expression in rat 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

TSC-36 (JJ7): sc-80408 is recommended as a control antibody for monitoring of TSC-36 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TSC-36 gene expression knockdown using RT-PCR Primer: TSC-36 (r)-PR: sc-270458-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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