

TES siRNA (m): sc-45510

BACKGROUND

TES was originally identified as a candidate tumor suppressor gene and has been found to encode a novel focal adhesion protein called TES or Testin. TES localizes to cell-cell contacts and Actin stress fibers, and interacts with a variety of cytoskeletal proteins including Zyxin, Mena, VASP, talin and Actin. The ability of TES to associate with α -actinin, paxillin and Zyxin is dependent on the conformational state of the molecule. TES contains three LIM zinc-binding domains and may act as a tumor suppressor. Overexpression of the TES gene results in increased cell spreading and decreased cell motility.

REFERENCES

1. Garvalov, B.K., et al. 2003. The conformational state of TES regulates its Zyxin-dependent recruitment to focal adhesions. *J. Cell Biol.* 161: 33-39.
2. Coutts, A.S., et al. 2003. TES is a novel focal adhesion protein with a role in cell spreading. *J. Cell Sci.* 116: 897-906.
3. Chene, L., et al. 2004. Extensive analysis of the 7q31 region in human prostate tumors supports TES as the best candidate tumor suppressor gene. *Int. J. Cancer* 111: 798-804.
4. Griffith, E., et al. 2005. RNAi knockdown of the focal adhesion protein TES reveals its role in Actin stress fibre organization. *Cell Motil. Cytoskeleton.* 60: 140-152.
5. Rotter, B., et al. 2005. α -II-spectrin interacts with TES and EVL, two Actin-binding proteins located at cell contacts. *Biochem. J.* 388: 631-638.

CHROMOSOMAL LOCATION

Genetic locus: Tes (mouse) mapping to 6 A2.

PRODUCT

TES siRNA (m) 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 TES shRNA Plasmid (m): sc-45510-SH and TES shRNA (m) Lentiviral Particles: sc-45510-V as alternate gene silencing products.

For independent verification of TES (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-45510A, sc-45510B and sc-45510C.

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.

RESEARCH USE

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

APPLICATIONS

TES siRNA (m) is recommended for the inhibition of TES 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

TES (G-9): sc-271184 is recommended as a control antibody for monitoring of TES 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 TES gene expression knockdown using RT-PCR Primer: TES (m)-PR: sc-45510-PR (20 μ l, 499 bp). 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.