

TFIP11 siRNA (m): sc-154236

BACKGROUND

TFIP11 (tuftelin-interacting protein 11), also known as NTR1, TIP39, STIP or hNtr1, is an 837 amino acid protein that belongs to the TFP11/STIP family. TFIP11 localizes to the nucleus as well as the cytoplasm and contains one G-patch domain, which is suggested to be a highly conserved domain of many RNA-processing proteins. Considered a novel splicing factor, TFIP11 may be involved in spliceosome disassembly and may act as a subnuclear storage compartment for splicing components. As a possible enamel protein, TFIP11 is thought to play a role in the differentiation of ameloblasts and odontoblasts or in the formation of the enamel extracellular matrix. Two isoforms of TFIP11 exists due to alternative splicing events.

REFERENCES

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3. Usdin, T.B., et al. 2002. The parathyroid hormone 2 (PTH2) receptor. *Recept. Channels* 8: 211-218.
4. Wen, X., et al. 2005. Structural organization and cellular localization of tuftelin-interacting protein 11 (TFIP11). *Cell. Mol. Life Sci.* 62: 1038-1046.
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6. Herrmann, G., et al. 2007. Conserved interactions of the splicing factor Ntr1/Spp382 with proteins involved in DNA double-strand break repair and telomere metabolism. *Nucleic Acids Res.* 35: 2321-2332.
7. Patir, A., et al. 2008. Enamel formation genes are associated with high caries experience in Turkish children. *Caries Res.* 42: 394-400.
8. Wen, X., et al. 2008. TFIP11 interacts with mDEAH9, an RNA Helicase involved in spliceosome disassembly. *Int. J. Mol. Sci.* 9: 2105-2113.

CHROMOSOMAL LOCATION

Genetic locus: Tfip11 (mouse) mapping to 5 F.

PRODUCT

TFIP11 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 TFIP11 shRNA Plasmid (m): sc-154236-SH and TFIP11 shRNA (m) Lentiviral Particles: sc-154236-V as alternate gene silencing products.

For independent verification of TFIP11 (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-154236A, sc-154236B and sc-154236C.

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

TFIP11 siRNA (m) is recommended for the inhibition of TFIP11 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

TFIP11 (C-7): sc-393081 is recommended as a control antibody for monitoring of TFIP11 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 MarkerTM 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 TFIP11 gene expression knockdown using RT-PCR Primer: TFIP11 (m)-PR: sc-154236-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.

PROTOCOLS

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