

MIP-T3 siRNA (h): sc-106224

BACKGROUND

Tumor necrosis factor receptor (TNFR) superfamily members transmit signals regulating proliferation, differentiation and apoptosis in various types of cells. TNFR-associated factors (TRAFs) are a family of proteins that were initially discovered as downstream signal transducers of the TNFR superfamily. TRAF3 contains an N-terminal RING-finger/zinc-finger region that is thought to be essential for downstream signaling. MIP-T3 is associated with TRAF3. MIP-T3 binds to taxol-stabilized microtubules and to Tubulin *in vitro*, and MIP-T3 recruits TRAF3 to microtubules when both proteins are overexpressed. The MIP-T3/TRAF3 interaction requires the coiled-coil TRAF-N domain of TRAF3. This interaction may provide a novel mechanism in sequestering TRAF3 to the cytoskeletal network.

REFERENCES

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2. Niu, Y., et al. 2003. MIP-T3 associates with IL-13R α 1 and suppresses Stat6 activation in response to IL-13 stimulation. *FEBS Lett.* 550: 139-143.
3. Dadgostar, H., et al. 2003. T3JAM, a novel protein that specifically interacts with TRAF3 and promotes the activation of JNK1. *FEBS Lett.* 553: 403-407.
4. Morris, J.A., et al. 2003. DISC1 (disrupted-in-schizophrenia 1) is a centrosome-associated protein that interacts with MAP-1A, MIP-T3, ATF-4/5 and nudel: regulation and loss of interaction with mutation. *Hum. Mol. Genet.* 12: 1591-1608.
5. Kakiuchi, C., et al. 2007. Association analysis of ATF-4 and ATF-5, genes for interacting-proteins of DISC1, in bipolar disorder. *Neurosci. Lett.* 417: 316-321.
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CHROMOSOMAL LOCATION

Genetic locus: TRAF3IP1 (human) mapping to 2q37.3.

PRODUCT

MIP-T3 siRNA (h) 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 MIP-T3 shRNA Plasmid (h): sc-106224-SH and MIP-T3 shRNA (h) Lentiviral Particles: sc-106224-V as alternate gene silencing products.

For independent verification of MIP-T3 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-106224A, sc-106224B and sc-106224C.

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

MIP-T3 siRNA (h) is recommended for the inhibition of MIP-T3 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

MIP-T3 (F-1): sc-393753 is recommended as a control antibody for monitoring of MIP-T3 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 MIP-T3 gene expression knockdown using RT-PCR Primer: MIP-T3 (h)-PR: sc-106224-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.