

TRIP6 siRNA (h): sc-45561

BACKGROUND

Zyxin is a LIM domain-containing, zinc finger domain-containing, SH3 ligand-containing phosphoprotein that localizes to focal adhesion plaques and Actin filament bundles. Thyroid receptor interacting protein 6 (TRIP6) is a Zyxin-related protein. It interacts with the ligand binding domain of the thyroid receptor and is predominantly expressed in kidney, liver and lung. It interacts with receptor-interacting protein 2 (RIP2) through LIM domains in a TNF- or IL-1-dependent manner. TRIP6 also interacts with TRAF2, a protein that is crucially involved in TNF signaling, as well as the IL-1 receptor, TLR2 and Nod1. Over-expression of TRIP6 facilitates NFκB activation by TNF, IL-1, TLR2 or Nod1, whereas a dominant negative mutant or RNA-interference construct of TRIP6 inhibits NFκB activation by TNF, IL-1, TLR2 or Nod1. Moreover, TRIP6 also potentiates RIP2- and Nod1-mediated ERK activation.

REFERENCES

1. Xu, J., et al. 2004. TRIP6 enhances lysophosphatidic acid-induced cell migration by interacting with the lysophosphatidic acid 2 receptor. *J. Biol. Chem.* 279: 10459-10468.
2. Lai, Y.J., et al. 2005. c-Src-mediated phosphorylation of TRIP6 regulates its function in lysophosphatidic acid-induced cell migration. *Mol. Cell. Biol.* 25: 5859-5868.
3. Li, L., et al. 2005. TRIP6 is a RIP2-associated common signaling component of multiple NFκB activation pathways. *J. Cell Sci.* 118: 555-563.
4. Petit, M.M., et al. 2005. The tumor suppressor Scrib selectively interacts with specific members of the Zyxin family of proteins. *FEBS Lett.* 579: 5061-5068.
5. Gur'ianova O.A., et al. 2005. Downregulation of TRIP6 expression induces Actin cytoskeleton rearrangements in human carcinoma cell lines. *Mol. Biol.* 39: 905-909.

CHROMOSOMAL LOCATION

Genetic locus: TRIP6 (human) mapping to 7q22.1.

PRODUCT

TRIP6 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 μM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TRIP6 shRNA Plasmid (h): sc-45561-SH and TRIP6 shRNA (h) Lentiviral Particles: sc-45561-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 μl of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μl of RNase-free water makes a 10 μM solution in a 10 μM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TRIP6 siRNA (h) is recommended for the inhibition of TRIP6 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 μM in 66 μl. 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

TRIP6 (F-8): sc-166310 is recommended as a control antibody for monitoring of TRIP6 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 TRIP6 gene expression knockdown using RT-PCR Primer: TRIP6 (h)-PR: sc-45561-PR (20 μl). 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.