SANTA CRUZ BIOTECHNOLOGY, INC.

TRIP siRNA (h): sc-78032

BACKGROUND

The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in the ubiquitination pathway of protein degradation. TRIP, also known as TRAIP (TRAF interacting protein) or RNF206 (RING finger protein 206), is a 469 amino acid protein that localizes to the perinuclear region of the cytoplasm and contains one RING-type zinc finger. Existing as a component of the receptor-TRAF signaling complex, TRIP interacts with TRAF1 and TRAF2 and functions to inhibit TNF-mediated NKκB activation, possibly playing a role in the regulation of cell activation and apoptosis. The gene encoding TRIP maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Lee, S.Y., et al. 1997. TRAF-interacting protein (TRIP): a novel component of the tumor necrosis factor receptor (TNFR)- and CD30-TRAF signaling complexes that inhibits TRAF2-mediated NFκB activation. J. Exp. Med. 185: 1275-1285.
2. Wilson, S.A., et al. 1998. TRIP: a novel double stranded RNA binding protein which interacts with the leucine rich repeat of flightless I. Nucleic Acids Res. 26: 3460-3467.
3. Regamey, A., et al. 2003. The tumor suppressor CYLD interacts with TRIP and regulates negatively nuclear factor κB activation by tumor necrosis factor. J. Exp. Med. 198: 1959-1964.
4. Beckly, J.B., et al. 2008. Two-stage candidate gene study of chromosome 3p demonstrates an association between nonsynonymous variants in the MST1R gene and Crohn's disease. Inflamm. Bowel Dis. 14: 500-507.
5. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 605958. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Zhou, Q. and Geahlen, R.L. 2009. The protein-tyrosine kinase Syk interacts with TRAF-interacting protein TRIP in breast epithelial cells. Oncogene 28(10): 1348-1356.

CHROMOSOMAL LOCATION

Genetic locus: TRAIP (human) mapping to 3p21.31.

PRODUCT

TRIP 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TRIP shRNA Plasmid (h): sc-78032-SH and TRIP shRNA (h) Lentiviral Particles: sc-78032-V as alternate gene silencing products.

For independent verification of TRIP (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-78032A, sc-78032B and sc-78032C.

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

TRIP siRNA (h) is recommended for the inhibition of TRIP 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TRIP gene expression knockdown using RT-PCR Primer: TRIP (h)-PR: sc-78032-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.