SANTA CRUZ BIOTECHNOLOGY, INC.

TBPIP siRNA (m): sc-154122

BACKGROUND

TBPIP (TBP-1-interacting protein), also known as PSMC3IP (PSMC3 interacting protein) or HOP2, is a 217 amino acid protein that localizes to the nucleus and is subject to phosphorylation by PKA, PKC or MAPK. Expressed at high levels in colon and testis, TBPIP functions to stimulate Dmc1-mediated strand exchange, thereby playing an important role in the pairing of homologous chromosomes during meiosis and during meiotic recombination. Human TBPIP shares 88% sequence identity with its mouse counterpart, suggesting a conserved role between species. TBPIP exists as multiple alternatively spliced isoforms and, when overexpressed, may be involved in the development of leiomyomas; benign soft tissue neoplasms that are found in smooth muscle. The gene encoding TBPIP maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

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6. Miyamoto, T., Koh, E., Sakugawa, N., Sato, H., Hayashi, H., Namiki, M. and Sengoku, K. 2008. Two single nucleotide polymorphisms in PRDM9 (MEISETZ) gene may be a genetic risk factor for Japanese patients with azoospermia by meiotic arrest. J. Assist. Reprod. Genet. 25: 553-557.

CHROMOSOMAL LOCATION

Genetic locus: Psmc3ip (mouse) mapping to 11 D.

PRODUCT

TBPIP siRNA (m) is a pool of 2 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 TBPIP shRNA Plasmid (m): sc-154122-SH and TBPIP shRNA (m) Lentiviral Particles: sc-154122-V as alternate gene silencing products.

For independent verification of TBPIP (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-154122A and sc-154122B.

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

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

TBPIP (A-5): sc-514014 is recommended as a control antibody for monitoring of TBPIP 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 TBPIP gene expression knockdown using RT-PCR Primer: TBPIP (m)-PR: sc-154122-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.