

TRAPPC2L siRNA (h): sc-93364

BACKGROUND

TRAPPC2L (trafficking protein particle complex subunit 2-like protein), also known as HSPC126, is a 140 amino acid protein belonging to the TRAPP small subunits family and Sedlin subfamily. Localizing to cytoplasm, endoplasmic reticulum and Golgi apparatus, TRAPPC2L is expressed in testis, liver, bladder, lung, spleen and brain. TRAPPC2L may have a role in vesicular transportation from endoplasmic reticulum to Golgi apparatus, and is a member of the multisubunit transport protein particle (TRAPP) complex. Interacting with TRAPPC2, TRAPPC3, TRAPPC4 and TRAPPC6A, the TRAPPC2L and TRAPPC2 genes are often found in pairs and show overlapping expression. TRAPPC2L exists as two alternatively spliced isoforms, and is encoded by a gene that maps to human chromosome 16q24.3. Chromosome 16 encodes over 900 genes in approximately 90 million base pairs, makes up nearly 3% of human cellular DNA and is associated with a variety of genetic disorders, including Rubinstein-Taybi syndrome and Crohn's disease.

REFERENCES

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2. Martin, J., et al. 2004. The sequence and analysis of duplication-rich human chromosome 16. *Nature* 432: 988-994.
3. Turnbull, A.P., et al. 2005. Structure of palmitoylated BET3: insights into TRAPP complex assembly and membrane localization. *EMBO J.* 24: 875-884.
4. Gervasini, C., et al. 2007. High frequency of mosaic CREBBP deletions in Rubinstein-Taybi syndrome patients and mapping of somatic and germ-line breakpoints. *Genomics* 90: 567-573.
5. Sacher, M., et al. 2008. The TRAPP complex: insights into its architecture and function. *Traffic* 9: 2032-2042.
6. Guo, H., et al. 2009. A novel RNA-splicing mutation in TRAPPC2 gene causing x-linked spondyloepiphyseal dysplasia tarda in a large Chinese family. *J. Genet.* 88: 87-91.
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CHROMOSOMAL LOCATION

Genetic locus: TRAPPC2L (human) mapping to 16q24.3.

PRODUCT

TRAPPC2L siRNA (h) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TRAPPC2L shRNA Plasmid (h): sc-93364-SH and TRAPPC2L shRNA (h) Lentiviral Particles: sc-93364-V as alternate gene silencing products.

For independent verification of TRAPPC2L (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-93364A and sc-93364B.

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

TRAPPC2L siRNA (h) is recommended for the inhibition of TRAPPC2L 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

TRAPPC2L (C-5): sc-377322 is recommended as a control antibody for monitoring of TRAPPC2L 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 TRAPPC2L gene expression knockdown using RT-PCR Primer: TRAPPC2L (h)-PR: sc-93364-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.