

TRAPPC5 siRNA (m): sc-154588

BACKGROUND

TRAPPC5 (trafficking protein particle complex 5), also known as TRS31, is a 181 amino acid protein belonging to the TRAPP (transport protein particle) small subunits family and the BET3 subfamily. Encoded by a gene that maps to human chromosome 19p13.2, TRAPPC5 is part of the multisubunit TRAPP tethering complex, which acts as a GTP exchange factor. Evolutionarily conserved, TRAPPC5 plays a role in protein binding, vesicle-mediated transport and nucleotide exchange stimulation. TRAPPC5 also performs guanine nucleotide exchanger factor (GEF) functions both *in vitro* and *in vivo*. Localizing to the Golgi apparatus, TRAPPC5 is essential for endoplasmic reticulum (ER)-to-Golgi and intra-Golgi vesicle trafficking in yeast, as well as additional transport events in mammals, such as post-Golgi trafficking.

REFERENCES

1. Jones, S., et al. 2000. The TRAPP complex is a nucleotide exchanger for Ypt1 and Ypt31/32. *Mol. Biol. Cell* 11: 4403-4411.
2. Gwynn, B., et al. 2006. A mouse TRAPP-related protein is involved in pigmentation. *Genomics* 88: 196-203.
3. Kokkinakis, D.M., et al. 2006. Mitotic arrest, apoptosis, and sensitization to chemotherapy of melanomas by methionine deprivation stress. *Mol. Cancer Res.* 4: 575-589.
4. Ossandon, F.J., et al. 2008. In silico analysis of gastric carcinoma Serial Analysis of Gene Expression libraries reveals different profiles associated with ethnicity. *Mol. Cancer* 7: 22.
5. Kwei, K.A., et al. 2008. Genomic profiling identifies GATA6 as a candidate oncogene amplified in pancreaticobiliary cancer. *PLoS Genet.* 4: e1000081.
6. Sacher, M., et al. 2008. The TRAPP complex: insights into its architecture and function. *Traffic* 9: 2032-2042.
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CHROMOSOMAL LOCATION

Genetic locus: Trappc5 (mouse) mapping to 8 A1.1.

PRODUCT

TRAPPC5 siRNA (m) 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 TRAPPC5 shRNA Plasmid (m): sc-154588-SH and TRAPPC5 shRNA (m) Lentiviral Particles: sc-154588-V as alternate gene silencing products.

For independent verification of TRAPPC5 (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-154588A, sc-154588B and sc-154588C.

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

TRAPPC5 siRNA (m) is recommended for the inhibition of TRAPPC5 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 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TRAPPC5 gene expression knockdown using RT-PCR Primer: TRAPPC5 (m)-PR: sc-154588-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.