SANTA CRUZ BIOTECHNOLOGY, INC.

TRAPPC6A siRNA (h): sc-97243

BACKGROUND

TRAPPC6A (trafficking protein particle complex 6A), also known as TRS33 or HSPC289, is a 159 amino acid protein that localizes to the Golgi apparatus and endoplasmic reticulum. Belonging to the TRAPP small subunits family and the BET3 subfamily, TRAPPC6A may play a role in vesicular transport during the biogenesis of melanosomes. TRAPPC6A is part of the multisubunit TRAPP tethering complex, which acts as a GTP exchange factor. TRAPPC6A exists as a heterodimer with TRAPPC3 and undergoes alternative splicing to produce two isoforms. TRAPPC6A is encoded by a gene located on human chromosome 19, which consists of approximately 63 million bases and makes up over 2% of human genomic DNA. Chromosome 19 is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a variety of ICAMs, the CEACAM and PSG families and Fc receptors (FcRs).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TRAPPC6A (human) mapping to 19q13.32.

PRODUCT

TRAPPC6A 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 TRAPPC6A shRNA Plasmid (h): sc-97243-SH and TRAPPC6A shRNA (h) Lentiviral Particles: sc-97243-V as alternate gene silencing products.

For independent verification of TRAPPC6A (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-97243A, sc-97243B and sc-97243C.

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

TRAPPC6A siRNA (h) is recommended for the inhibition of TRAPPC6A 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

TRAPPC6A (G-5): sc-376032 is recommended as a control antibody for monitoring of TRAPPC6A 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 TRAPPC6A gene expression knockdown using RT-PCR Primer: TRAPPC6A (h)-PR: sc-97243-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.