SANTA CRUZ BIOTECHNOLOGY, INC.

RGS17 siRNA (h): sc-61466

BACKGROUND

The regulators of G protein signaling (RGS) proteins inhibit heterotrimeric G protein signaling. RGS proteins work by functioning as GTPase-activating proteins (which increase the GTPase activity of G protein α-subunits) thereby driving G proteins into their inactive GDP-bound form. The human gene that encodes RGS17 (regulator of G protein signaling 17, RGS17) contains four exons, spans more than 33 kb and maps to chromosome 6q25.2; the mouse Rgs17 gene maps to chromosome 10 A1 as determined by interspecific back-cross mapping. RGS17 is a member of the RZ/A protein family. RZ/A proteins have a simple structure that consists of a conserved amino-terminal cysteine string motif, RGS box and short carboxyl-terminal, which confer GAP activity and the ability to undergo covalent modification and associate with other proteins (at their amino-termini).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RGS17 (human) mapping to 6q25.2.

PRODUCT

RGS17 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 RGS17 shRNA Plasmid (h): sc-61466-SH and RGS17 shRNA (h) Lentiviral Particles: sc-61466-V as alternate gene silencing products.

For independent verification of RGS17 (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-61466A, sc-61466B and sc-61466C.

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 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

RGS17 siRNA (h) is recommended for the inhibition of RGS17 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 RGS17 gene expression knockdown using RT-PCR Primer: RGS17 (h)-PR: sc-61466-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.