

Rho H siRNA (h): sc-106503

BACKGROUND

The Rho subfamily of small GTP-binding proteins mediates many fundamental cellular functions. The commonly studied members (Rho, Rac, and CDC42) regulate actin reorganization and affect diverse cellular responses, including adhesion, cytokinesis, and motility. Rho H, also known as TTF (Translocation Three Four), Rho-related GTP-binding protein and Ras homolog gene family member H, is unlike most other small G proteins. Most small G proteins are expressed ubiquitously, however, Rho H is expressed only in hemopoietic cells and tissues. Translocations and a high frequency of Rho H mutation have been detected in primary lymphoma cells. Rho H expression has also been observed in activated neutrophils. Rho H is GTPase deficient, remaining in a GTP-bound activated state without cycling. Rho H may be involved in the functional differentiation of T cells and in cytoskeleton organization. The Rho H/TTF (ARHH) gene maps to chromosome 4p14 and encodes a 191-amino acid polypeptide.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RHOH (human) mapping to 4p14.

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.

PRODUCT

Rho H 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Rho H shRNA Plasmid (h): sc-106503-SH and Rho H shRNA (h) Lentiviral Particles: sc-106503-V as alternate gene silencing products.

For independent verification of Rho H (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-106503A, sc-106503B and sc-106503C.

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

Rho H siRNA (h) is recommended for the inhibition of Rho H 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Rho H gene expression knockdown using RT-PCR Primer: Rho H (h)-PR: sc-106503-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.