



RIF1 siRNA (h): sc-78980

BACKGROUND

RIF1 (receptor-interacting factor 1), also known as LRIF1 (ligand-dependent nuclear receptor-interacting factor 1) or C1orf103, is a 769 amino acid protein belonging to the LRIF1 family. Localizing to the nuclear matrix, RIF1 is widely expressed, with high levels of expression found in heart, liver and placenta. RIF1 interacts directly with RAR α (retinoic acid receptor α), repressing RAR α ligand-induced transcriptional activity. Existing as two alternatively spliced isoforms, the gene encoding RIF1 maps to human chromosome 1p13.3 and mouse chromosome 3 F2.3. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes Lamin A.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LRIF1 (human) mapping to 1p13.3.

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

RIF1 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 RIF1 shRNA Plasmid (h): sc-78980-SH and RIF1 shRNA (h) Lentiviral Particles: sc-78980-V as alternate gene silencing products.

For independent verification of RIF1 (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-78980A, sc-78980B and sc-78980C.

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

RIF1 siRNA (h) is recommended for the inhibition of RIF1 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 RIF1 gene expression knockdown using RT-PCR Primer: RIF1 (h)-PR: sc-78980-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.