



# GRSF-1 siRNA (m): sc-75203

## BACKGROUND

GRSF-1 (G-rich RNA sequence binding factor 1) is a 480 amino acid cytoplasmic protein that contains three RRM (RNA recognition motif) domains and two auxiliary domains. Considered a cellular protein, GRSF-1 binds to RNAs containing the G-rich element. It is suggested that GRSF-1 selectively recruits cellular and viral mRNAs containing 5' UTR GRSF-1 binding sites to polyribosomes, which is mediated through interactions with cellular proteins. GRSF-1 is encoded by a gene located on human chromosome 4q13.3, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Grsf1 (mouse) mapping to 5 E1.

## PRODUCT

GRSF-1 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GRSF-1 shRNA Plasmid (m): sc-75203-SH and GRSF-1 shRNA (m) Lentiviral Particles: sc-75203-V as alternate gene silencing products.

For independent verification of GRSF-1 (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-75203A, sc-75203B and sc-75203C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

GRSF-1 siRNA (m) is recommended for the inhibition of GRSF-1 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  $\mu$ M in 66  $\mu$ 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 GRSF-1 gene expression knockdown using RT-PCR Primer: GRSF-1 (m)-PR: sc-75203-PR (20  $\mu$ 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.