SANTA CRUZ BIOTECHNOLOGY, INC.

MIF4GD siRNA (h): sc-94142

BACKGROUND

MIF4GD (MIF4G domain containing), also known as MIFD, AD023 or SLIP1, is a 222 amino acid protein that contains one MIF4G domain. Localized to both the nucleus and the cytoplasm, MIF4GD plays a role in the replication-dependent translation of histone mRNAs, which differ from most eukaryotic mRNAs in that they end with a stem-loop instead of a poly-A tail. Specifically, MIF4GD interacts with SLBP, eIF4G and DAP-5. Via its interaction with SLBP, MIF4GD is thought to be tethered to the stem loops of histone mRNAs where it may facilitate the circularizing of the mRNAs, thereby enhancing their translation. Depletion of MIF4GD results in reduced histone translation and may lead to cell death, suggesting that MIF4GD plays an important role in cell survival. Two isoforms of MIF4GD exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MIF4GD (human) mapping to 17q25.1.

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

MIF4GD 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 MIF4GD shRNA Plasmid (h): sc-94142-SH and MIF4GD shRNA (h) Lentiviral Particles: sc-94142-V as alternate gene silencing products.

For independent verification of MIF4GD (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-94142A, sc-94142B and sc-94142C.

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

MIF4GD siRNA (h) is recommended for the inhibition of MIF4GD 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 MIF4GD gene expression knockdown using RT-PCR Primer: MIF4GD (h)-PR: sc-94142-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.