SANTA CRUZ BIOTECHNOLOGY, INC.

MRFAP1 siRNA (h): sc-89303

BACKGROUND

The members of the mortality factor family include mortality factor 4 (MORF4), MORF4L1 (also known as MRG15) and MORF4-related gene X (MRGX). The human MORF4 gene maps to chromosome 4qq34.1. MORF4 induces a senescent-like phenotype in complementation group B immortal cell lines. MORF4 family-associated protein 1 (MRFAP1), also known as GAM14 or PGR1, is a 127 amino acid member of the MORF4 family-associated protein family. Localized to nucleus and cytoplasm, MRFAP1 colocalizes with MORF4L1 to the cell nuclei. Its association with MORF4L1 and Rb1 suggests that MRFAP1 may play a role in transcription regulation. The gene encoding human MRFAP1 maps to chromosome 4p16.1.

REFERENCES

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2. Pardo, P.S., Leung, J.K., Lucchesi, J.C. and Pereira-Smith, O.M. 2002. MRG15, a novel chromodomain protein, is present in two distinct multiprotein complexes involved in transcriptional activation. J. Biol. Chem. 277: 50860-50866.
3. Tominaga, K., Leung, J.K., Rookard, P., Echigo, J., Smith, J.R. and Pereira-Smith, O.M. 2003. MRGX is a novel transcriptional regulator that exhibits activation or repression of the B-myb promoter in a cell type-dependent manner. J. Biol. Chem. 278: 49618-49624.
4. Tominaga, K., Magee, D.M., Matzuk, M.M. and Pereira-Smith, O.M. 2004. PAM14, a novel MRG- and Rb-associated protein, is not required for development and T-cell function in mice. Mol. Cell. Biol. 24: 8366-8373.

CHROMOSOMAL LOCATION

Genetic locus: MRFAP1 (human) mapping to 4p16.1.

PRODUCT

MRFAP1 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 MRFAP1 shRNA Plasmid (h): sc-89303-SH and MRFAP1 shRNA (h) Lentiviral Particles: sc-89303-V as alternate gene silencing products.

For independent verification of MRFAP1 (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-89303A, sc-89303B and sc-89303C.

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.

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

MRFAP1 siRNA (h) is recommended for the inhibition of MRFAP1 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 MRFAP1 gene expression knockdown using RT-PCR Primer: MRFAP1 (h)-PR: sc-89303-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.