The members of the mortality factor family include mortality factor 4 (MORF4), MORF4-related gene 15 (MRG15) and MORF4-related gene X (MRGX). The human MORF4 gene maps to chromosome 4q33-q34.1. MORF4 induces a senescent-like phenotype in complementation group B immortal cell lines. The genes encoding MRG15 and MRGX map to chromosomes 15q24 and Xq22, respectively. MORF4, MRG15 and MRGX each contain a C-terminal leucine zipper. An association between MRG15, Rb (retinoblastoma tumor suppressor) and PAM14 (protein associated with MRG15, 14 kDa) suggests a role for MRG15 in transcription regulation. MRG15 also associates with the histone acetyl transferase MOF. In addition, MORF4, MRG14 and MRGX interact with mSin3A and TLE (transducin-like enhancer of split). The MORF/mSin3A/TLE association may repress transcription. In Purkinje cells, MRG15 localizes to the dendrites and the nuclei.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: MORF4 (human) mapping to 4q33-q34.1; Morf4 (mouse) mapping to 5 B3.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

MORF4 siRNA (h) is a pool of 3 target-specific 20-25 nt siRNAs designed to knock down gene expression. Each vial contains 3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections.

For independent verification of MORF4 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3 nmol of lyophilized siRNA. These include: sc-38043A, sc-38043B and sc-38043C.

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

MORF4 siRNA (h) is recommended for the inhibition of MORF4 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 10µM in 60 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. Semi-quantitative RT-PCR may be performed using RT-PCR Primer: MORF4 (h)-PR: sc-38043-PR (20 µl).

See our web site at www.scbt.com or our catalog for detailed protocols and support products.