

MPHOSPH6 siRNA (h): sc-62635

BACKGROUND

Progression of cells from interphase to mitosis involves alterations in cell structures and activities. The transition from G₂ to M phase is induced by M phase-promoting factor (MPF). In M phase, many proteins are phosphorylated directly by MPF or indirectly by kinases activated by MPF. These M phase phosphoproteins (MPPs), also known as MPHOSPHs, permit disassembly of interphase structures and generation of M phase enzymatic activities and structures. MPP6 (M phase phosphoprotein 6) is a 160 amino acid protein encoded by the human gene MPHOSPH6. MPP6, a member of the MPP family, contains one nuclear localization signal motif.

REFERENCES

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2. Chen, C.Y., et al. 2001. AU binding proteins recruit the exosome to degrade ARE-containing mRNAs. *Cell* 107: 451-464.
3. Leonoudakis, D., et al. 2004. Protein trafficking and anchoring complexes revealed by proteomic analysis of inward rectifier potassium channel (Kir2.x)-associated proteins. *J. Biol. Chem.* 279: 22331-22346.
4. Lehner, B., et al. 2004. A protein interaction framework for human mRNA degradation. *Genome Res.* 14: 1315-1323.
5. Schilders, G., et al. 2006. MPP6 is an exosome-associated RNA-binding protein involved in 5.8S rRNA maturation. *Nucleic Acids Res.* 33: 6795-6804.
6. Schilders, G., et al. 2007. C1D and hMTR4p associate with the human exosome subunit PM/Scf-100 and are involved in pre-rRNA processing. *Nucleic Acids Res.* 35: 2564-2572.

CHROMOSOMAL LOCATION

Genetic locus: MPHOSPH6 (human) mapping to 16q23.3.

PRODUCT

MPHOSPH6 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 MPHOSPH6 shRNA Plasmid (h): sc-62635-SH and MPHOSPH6 shRNA (h) Lentiviral Particles: sc-62635-V as alternate gene silencing products.

For independent verification of MPHOSPH6 (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-62635A, sc-62635B and sc-62635C.

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

MPHOSPH6 siRNA (h) is recommended for the inhibition of MPHOSPH6 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.

GENE EXPRESSION MONITORING

MPHOSPH6 (D-3): sc-393429 is recommended as a control antibody for monitoring of MPHOSPH6 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor MPHOSPH6 gene expression knockdown using RT-PCR Primer: MPHOSPH6 (h)-PR: sc-62635-PR (20 μ 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 for detailed protocols and support products.