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PHF8 siRNA (m): sc-152221

BACKGROUND

PHF8 (PHD finger protein 8), also known as JHDM1F (Jumonji C domain-containing histone demethylase 1F), MRXSSD or ZNF422, is a 1,024 amino acid protein belonging to the PHD finger protein family. Members of the PHD finger protein family function as transcriptional regulators that affect gene expression by modulating chromatin structure. PHF8 is an evolutionarily conserved protein containing one PHD-type zinc finger and one JMJC domain, suggesting a possible role for PHF8 in transcription regulation and chromatin remodeling. Mutations in the gene encoding PHF8 can result in MRXSSD (mental retardation X-linked Siderius type), a condition characterized as a syndromic form of mental retardation in which patients may exhibit recognizable physical signs such as facial dysmorphism or skeletal abnormalities or biochemical abnormalities.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Phf8 (mouse) mapping to X F3.

PROTOCOLS

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

PRODUCT

PHF8 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PHF8 shRNA Plasmid (m): sc-152221-SH and PHF8 shRNA (m) Lentiviral Particles: sc-152221-V as alternate gene silencing products.

For independent verification of PHF8 (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-152221A, sc-152221B and sc-152221C.

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

PHF8 siRNA (m) is recommended for the inhibition of PHF8 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 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PHF8 gene expression knockdown using RT-PCR Primer: PHF8 (m)-PR: sc-152221-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.