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SANTA CRUZ BIOTECHNOLOGY, INC.

PHF23 siRNA (m): sc-152217

BACKGROUND

PHF23 (PHD finger protein 23), also known as PDH-containing protein JUNE-1 or hJUNE-1b, is a 403 amino acid phosphoprotein belonging to the PHF23 family. Existing as two alternatively spliced isoforms, PHF23 contains one C-terminal coiled-coiled domain and one plant homeodomain (PHD) finger, which is a structural fold in nuclear proteins that is coordinated by two zinc atoms and may mediate chromatin remodeling. PHF23 is linked to acute myeloid leukemia via a cryptic translocation that produces an in-frame fusion of exon 13 of Nup98 to exon 4 of PHF23, resulting in a chimeric protein composed of the N-terminal portion of Nup98 fused with the C-terminal functional domains of PHF23. Although the fused protein localizes to nucleus, a deletion mutant lacking the PHD domain exists exclusively in nucleolus, suggesting a link between the chromatin-binding PHD domain of PHF23 and nuclear architecture. The gene that encodes PHF23 maps to human chromosome 17p13.1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Phf23 (mouse) mapping to 11 B3.

PRODUCT

PHF23 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PHF23 shRNA Plasmid (m): sc-152217-SH and PHF23 shRNA (m) Lentiviral Particles: sc-152217-V as alternate gene silencing products.

For independent verification of PHF23 (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-152217A, sc-152217B and sc-152217C.

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

PHF23 siRNA (m) is recommended for the inhibition of PHF23 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 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 PHF23 gene expression knockdown using RT-PCR Primer: PHF23 (m)-PR: sc-152217-PR (20 µl). 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.