SANTA CRUZ BIOTECHNOLOGY, INC.

PHF16 siRNA (h): sc-91281

BACKGROUND

PHF16 (PHD finger protein 16), also known as JADE3, is an 823 amino acid protein that belongs to the JADE family. PHF16 contains two mid-molecule tandem plant homology domain (PHD) zinc fingers and is expressed in early organogenesis. Endogenous JADE proteins, including Jade-1, PHF15 and PHF16, co-purify with the HBO1 complex, along with either of the individual PHD zinc finger proteins ING4 or ING5. The complex exhibits Histone H4-specific acetyltransferase activity, reduced activity toward Histone H3 and is responsible for the bulk of Histone H4 acetylation *in vivo*. The gene that encodes PHF16 maps to human chromosome Xp11.23, which is linked to early speech and language delay, mild mental retardation, macrocephaly, early myopia, mild scoliosis and hypomelanosis of Ito through a *de novo* duplication of Xp11.3-p11.4 and random X inactivation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: JADE3 (human) mapping to Xp11.23.

PROTOCOLS

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

PRODUCT

PHF16 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 PHF16 shRNA Plasmid (h): sc-91281-SH and PHF16 shRNA (h) Lentiviral Particles: sc-91281-V as alternate gene silencing products.

For independent verification of PHF16 (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-91281A, sc-91281B and sc-91281C.

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

PHF16 siRNA (h) is recommended for the inhibition of PHF16 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 PHF16 gene expression knockdown using RT-PCR Primer: PHF16 (h)-PR: sc-91281-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.