SANTA CRUZ BIOTECHNOLOGY, INC.

Jade-1 siRNA (h): sc-88893

BACKGROUND

Jade-1, also known as PHF17 (PHD finger protein 17), is an 842 amino acid protein that localizes to both the cytoplasm and the nucleus and contains two PHD-type zinc fingers. Expressed at high levels in kidney tissue and also present in heart, pancreas and liver, Jade-1 functions as a transcriptional coactivator that, via its PHD zinc fingers, promotes the TIP30-dependent acetylation of Histone H4. Additionally, Jade-1 is thought to promote apoptosis and is down-regulated in renal carcinoma cells, suggesting a possible role in tumor suppression. Three isoforms of Jade-1, two of which are designated JADE1L and JADE1S, are produced via alternative splicing events. The gene encoding Jade-1 maps to human chromosome 4q28.2, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

REFERENCES

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6. Foy, R.L., Song, I.Y., Chitalia, V.C., Cohen, H.T., Saksouk, N., Cayrou, C., Vaziri, C., Côte, J. and Panchenko, M.V. 2008. Role of Jade-1 in the histone acetyltransferase (HAT) HBO1 complex. J. Biol. Chem. 283: 28817-28826.

CHROMOSOMAL LOCATION

Genetic locus: JADE1 (human) mapping to 4q28.2.

PRODUCT

Jade-1 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 Jade-1 shRNA Plasmid (h): sc-88893-SH and Jade-1 shRNA (h) Lentiviral Particles: sc-88893-V as alternate gene silencing products.

For independent verification of Jade-1 (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-88893A, sc-88893B and sc-88893C.

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

Jade-1 siRNA (h) is recommended for the inhibition of Jade-1 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 Jade-1 gene expression knockdown using RT-PCR Primer: Jade-1 (h)-PR: sc-88893-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.