SANTA CRUZ BIOTECHNOLOGY, INC.

HATH-6 siRNA (h): sc-94577

BACKGROUND

HATH-6, also known as atonal homolog 8 (ATOH8), is a 321 amino acid putative transcription factor. Localized to the nucleus, HATH-6 is expressed in kidney, lung, liver, pancreas, heart and the endothelium of umbilical vessels. HATH-6 is thought to participate in podocyte development in the kidney and may be involved in specification and differentiation of brain neuronal cell lineages. As a transcription factor, HATH-6 contains one basic helix-loop-helix (bHLH) domain. In order to efficiently bind to DNA, HATH-6 must be bound to another bHLH domain containing protein. HATH-6 exists as two isoforms produced by alternative splicing.

REFERENCES

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7. Ross, M.D., Martinka, S., Mukherjee, A., Sedor, J.R., Vinson, C. and Bruggeman, L.A. 2006. Math6 expression during kidney development and altered expression in a mouse model of glomerulosclerosis. Dev. Dyn. 235: 3102-3109.
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CHROMOSOMAL LOCATION

Genetic locus: ATOH8 (human) mapping to 2p11.2.

PRODUCT

HATH-6 siRNA (h) is a target-specific 19-25 nt siRNA 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 HATH-6 shRNA Plasmid (h): sc-94577-SH and HATH-6 shRNA (h) Lentiviral Particles: sc-94577-V as alternate gene silencing products.

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

HATH-6 siRNA (h) is recommended for the inhibition of HATH-6 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 HATH-6 gene expression knockdown using RT-PCR Primer: HATH-6 (h)-PR: sc-94577-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Hartmann, D., Fiedler, J., Sonnenschein, K., Just, A., Pfanne, A., Zimmer, K., Remke, J., Foinquinos, A., Butzlaff, M., Schimmel, K., Maegdefessel, L., Hilfiker-Kleiner, D., Lachmann, N., Schober, A., Froese, N., et al. 2016. MicroRNA-based therapy of GATA2-deficient vascular disease. Circulation 134: 1973-1990.

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.