SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF354A siRNA (h): sc-91974

BACKGROUND

ZNF354A, also called EZNF, KID-1 or TCF17, belongs to the Kruppel C_2H_2-type zinc-finger family of proteins that contain KRAB domains and act as transcriptional regulators. Expressed primarily in the adult kidney, ZNF354A is a transcriptional repressor that plays a role in late renal development and is suppressed after renal ischemia. The N-terminus of ZNF354A contains the KRAB domain which confers transcriptional repressor activity, while the C-terminus contains multiple Cys_2His_2 zinc-fingers. ZNF354A is located in the nucleolus and is thought to specifically influence development of the proximal tubule by shutting off dispensable or inhibitory genes. Reduced ZNF354A expression prevents proper cell differentiation and may, therefore, be implicated in renal carcinoma.

REFERENCES

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6. Tekki-Kessaris, N., Bonventre, J.V. and Boulter, C.A. 1999. Characterization of the mouse Kid1 gene and identification of a highly related gene, Kid2. Gene 240: 13-22.
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8. Azzouz, T.N., Gruber, A. and Schümperli, D. 2005. U7 snRNP-specific Lsm11 protein: dual binding contacts with the 100 kDa zinc finger processing factor (ZFP100) and a ZFP100-independent function in histone RNA 3' end processing. Nucleic Acids Res. 33: 2106-2117.

CHROMOSOMAL LOCATION

Genetic locus: ZNF354A (human) mapping to 5q35.3.

PROTOCOLS

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

PRODUCT

ZNF354A 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 ZNF354A shRNA Plasmid (h): sc-91974-SH and ZNF354A shRNA (h) Lentiviral Particles: sc-91974-V as alternate gene silencing products.

For independent verification of ZNF354A (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-91974A, sc-91974B and sc-91974C.

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

ZNF354A siRNA (h) is recommended for the inhibition of ZNF354A 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.

GENE EXPRESSION MONITORING

ZNF354A (149C1a): sc-81140 is recommended as a control antibody for monitoring of ZNF354A gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ZNF354A gene expression knockdown using RT-PCR Primer: ZNF354A (h)-PR: sc-91974-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.