SANTA CRUZ BIOTECHNOLOGY, INC.

AXUD1 siRNA (m): sc-60238

BACKGROUND

Axin, an important regulator of β-catenin, is frequently mutated in human hepatocellular carcinomas (HCCs). Transduction of the wildtype Axin gene (AXIN1) induces apoptosis in colon cancer cells as well as in HCC cells. Axin-1 upregulated gene 1 protein (AXUD1), also designated TGFβ-induced apoptosis protein 3 (TAIP-3) or URAX1, is ubiquitously expressed, but highest levels are detected in placenta, lung, skeletal muscle, leukocytes and pancreas. AXUD1 has increased expression in response to exogenously expressed Axin-1 and localizes primarily to the nucleus. It is downregulated in kidney, lung, liver and colon cancers compared with corresponding unaffected tissues, which implicates that AXUD1 may function as a tumor-suppressor in these organs. AXUD1 may also be also be involved in apoptosis.

REFERENCES

1. Hart, M.J., et al. 1998. Downregulation of β-catenin by human Axin and its association with the APC tumor suppressor, β-catenin and GSK3 β. Curr. Biol. 8: 573-581.
2. Satoh, S., et al. 2000. AXIN1 mutations in hepatocellular carcinomas, and growth suppression in cancer cells by virus-mediated transfer of AXIN1. Nat. Genet. 24: 245-250.
3. Ishiguro, H., et al. 2001. Identification of AXUD1, a novel human gene induced by AXIN1 and its reduced expression in human carcinomas of the lung, liver, colon and kidney. Oncogene 20: 5062-5066.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606458. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Yi, X., et al. 2006. Transcriptional analysis of doxorubicin-induced cardiotoxicity. Am. J. Physiol. Heart Circ. Physiol. 290: H1098-H1102.

CHROMOSOMAL LOCATION

Genetic locus: Csrnp1 (mouse) mapping to 9 F4.

PRODUCT

AXUD1 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 AXUD1 shRNA Plasmid (m): sc-60238-SH and AXUD1 shRNA (m) Lentiviral Particles: sc-60238-V as alternate gene silencing products.

For independent verification of AXUD1 (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-60238A, sc-60238B and sc-60238C.

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.

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

AXUD1 siRNA (m) is recommended for the inhibition of AXUD1 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 AXUD1 gene expression knockdown using RT-PCR Primer: AXUD1 (m)-PR: sc-60238-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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