SANTA CRUZ BIOTECHNOLOGY, INC.

ARID3C siRNA (h): sc-92525

BACKGROUND

ARID3C (AT rich interactive domain 3C) is a 412 amino acid nuclear protein containing an ARID domain that is a member of the AT-rich interaction domain family of proteins. AT-rich interaction domain family members are involved in embryonic patterning, cell lineage gene regulation, cell cycle control, transcriptional regulation and chromatin structure modification. The ARID domain is a helix-turn-helix motif-based DNA-binding domain. The gene encoding ARID3C is located on human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

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2. Numata, S., et al. 1999. Bdp, a new member of a family of DNA-binding proteins, associates with the retinoblastoma gene product. Cancer Res. 59: 3741-3747.
3. Kortschak, R.D., et al. 2000. ARID proteins come in from the desert. Trends Biochem. Sci. 25: 294-299.
4. Humphray, S.J., et. al. 2004. DNA sequence and analysis of human chromosome 9. Nature 429: 369-374.
5. Kobayashi, K., et al. 2006. ARID3B induces malignant transformation of mouse embryonic fibroblasts and is strongly associated with malignant neuroblastoma. Cancer Res. 66: 8331-8336.
6. Takebe, A., et al. 2006. Microarray analysis of PDGFR α^+ populations in ES cell differentiation culture identifies genes involved in differentiation of mesoderm and mesenchyme including ARID3b that is essential for development of embryonic mesenchymal cells. Dev. Biol. 293: 25-37.
7. Kim, D., et al. 2006. A regulated nucleocytoplasmic shuttle contributes to Bright's function as a transcriptional activator of immunoglobulin genes. Mol. Cell. Biol. 26: 2187-2201.

CHROMOSOMAL LOCATION

Genetic locus: ARID3C (human) mapping to 9p13.3.

PRODUCT

ARID3C 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 ARID3C shRNA Plasmid (h): sc-92525-SH and ARID3C shRNA (h) Lentiviral Particles: sc-92525-V as alternate gene silencing products.

For independent verification of ARID3C (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-92525A, sc-92525B and sc-92525C.

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

ARID3C siRNA (h) is recommended for the inhibition of ARID3C 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 ARID3C gene expression knockdown using RT-PCR Primer: ARID3C (h)-PR: sc-92525-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.