SANTA CRUZ BIOTECHNOLOGY, INC.

ARID2 siRNA (h): sc-96225

BACKGROUND

BAF200 (AT-rich interactive domain-containing protein 2, BRG1-associated factor 200) is a 1,835 amino acid protein encoded by the human gene ARID2. BAF200 is a nuclear protein that belongs to the SWI/SNF family of chromatin-remodeling complexes and contains one ARID domain. It is involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). BAF200 is required for the stability of the BAF (SWI/SNF-A) and PBAF (SWI/SNF-B) chromatin remodeling complexes. It also may be involved in targeting the SWI/SNF complex to different genes.

REFERENCES

1. Whitehouse, I., et al. 2000. Mechanisms for ATP-dependent chromatin remodelling. Biochem. Soc. Trans. 28: 376-379.
2. Martens, J.A., et al. 2003. Recent advances in understanding chromatin remodeling by Swi/Snf complexes. Curr. Opin. Genet. Dev. 13: 136-142.
3. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Genome Res. 14: 2121-2127.
4. Wilsker, D., et al. 2005. Nomenclature of the ARID family of DNA-binding proteins. Genomics 86: 242-251.
5. Patsialou, A., et al. 2005. DNA-binding properties of ARID family proteins. Nucleic Acids Res. 33: 66-80.
6. Yan, Z., et al. 2005. PBAF chromatin-remodeling complex requires a novel specificity subunit, BAF200, to regulate expression of selective interferon-responsive genes. Genes Dev. 19: 1662-1667.
7. Zhang, X., et al. 2006. Zipzap/p200 is a novel zinc finger protein contributing to cardiac gene regulation. Biochem. Biophys. Res. Commun. 346: 794-801.

CHROMOSOMAL LOCATION

Genetic locus: ARID2 (human) mapping to 12q12.

PRODUCT

ARID2 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 ARID2 shRNA Plasmid (h): sc-96225-SH and ARID2 shRNA (h) Lentiviral Particles: sc-96225-V as alternate gene silencing products.

For independent verification of ARID2 (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-96225A, sc-96225B and sc-96225C.

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

ARID2 siRNA (h) is recommended for the inhibition of ARID2 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

ARID2 (E-3): sc-166117 is recommended as a control antibody for monitoring of ARID2 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ARID2 gene expression knockdown using RT-PCR Primer: ARID2 (h)-PR: sc-96225-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. Easley, R., et al. 2010. Transcription through the HIV-1 nucleosomes: effects of the PBAF complex in Tat activated transcription. Virology 405: 322-333.

RESEARCH USE

For research use only, not for use in diagnostic procedures.