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- Diagnostik & molekulare Diagnostik
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## Lieferung & Zahlungsart

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## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

# ARID1A siRNA (h): sc-43628

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

The SWI-SNF complex is involved in the activation of transcription via the remodeling of nucleosome structure in an ATP-dependent manner. Brm (also designated Snf2α) and Brg-1 (also designated Snf2β) are the ATPase subunits of the mammalian SWI-SNF complex. Brm, Brg-1, Ini1 (integrase interactor 1, also designated SNF5), BAF155 (also designated SRG3) and BAF170 are thought to comprise the functional core of the SWI-SNF complex. Addition of Ini1, BAF155 and BAF170 to Brg-1 appears to increase remodeling activity. Other complex subunits, such as BAF250a (p270 or ARID 1A) and BAF250b (ARID1B), are thought to play regulatory roles.

## CHROMOSOMAL LOCATION

Genetic locus: ARID1A (human) mapping to 1p36.11.

## PRODUCT

ARID1A 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 ARID1A shRNA Plasmid (h): sc-43628-SH and ARID1A shRNA (h) Lentiviral Particles: sc-43628-V as alternate gene silencing products.

For independent verification of ARID1A (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-43628A, sc-43628B and sc-43628C.

## 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

ARID1A siRNA (h) is recommended for the inhibition of ARID1A 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

ARID1A (PSG3): sc-32761 is recommended as a control antibody for monitoring of ARID1A 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 ARID1A gene expression knockdown using RT-PCR Primer: ARID1A (h)-PR: sc-43628-PR (20 µl, 575 bp). 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. Human T-lymphotropic virus type 1 transcription and chromatin-remodeling complexes. J. Virol. 84: 4755-4768.
2. Easley, R., et al. 2010. Transcription through the HIV-1 nucleosomes: effects of the PBAF complex in Tat activated transcription. Virology 405: 322-333.
3. Nettersheim, D., et al. 2016. A signaling cascade including ARID1A, GADD45B and DUSP1 induces apoptosis and affects the cell cycle of germ cell cancers after romidepsin treatment. Oncotarget 7: 74931-74946.
4. Yang, Y., et al. 2019. Loss of ARID1A promotes proliferation, migration and invasion via the Akt signaling pathway in NPC. Cancer Manag. Res. 11: 4931-4946.
5. Somsuan, K., et al. 2019. ARID1A knockdown triggers epithelial-mesenchymal transition and carcinogenesis features of renal cells: role in renal cell carcinoma. FASEB J. 33: 12226-12239.
6. Kurz, L., et al. 2020. ARID1A regulates transcription and the epigenetic landscape via POLE and DMAP1 while ARID1A deficiency or pharmacological inhibition sensitizes germ cell tumor cells to ATR inhibition. Cancers 12 pii: E905.


## 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.