SANTA CRUZ BIOTECHNOLOGY, INC.

ARID1A (C-7): sc-373784

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; Arid1a (mouse) mapping to 4 D3.

SOURCE

ARID1A (C-7) is a mouse monoclonal antibody raised against amino acids 1236-1325 mapping within an internal region of BAF250a of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-373784 X, 200 µg/0.1 ml.

ARID1A (C-7) is available conjugated to agarose (sc-373784 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373784 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373784 PE), fluorescein (sc-373784 FITC), Alexa Fluor® 488 (sc-373784 AF488), Alexa Fluor® 546 (sc-373784 AF546), Alexa Fluor® 594 (sc-373784 AF594) or Alexa Fluor® 647 (sc-373784 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373784 AF680) or Alexa Fluor® 790 (sc-373784 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ARID1A (C-7) is recommended for detection of ARID1A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ARID1A siRNA (h): sc-43628, ARID1A siRNA (m): sc-45942, ARID1A shRNA Plasmid (h): sc-43628-SH, ARID1A shRNA Plasmid (m): sc-45942-SH, ARID1A shRNA (h) Lentiviral Particles: sc-43628-V and ARID1A shRNA (m) Lentiviral Particles: sc-45942-V.

ARID1A (C-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

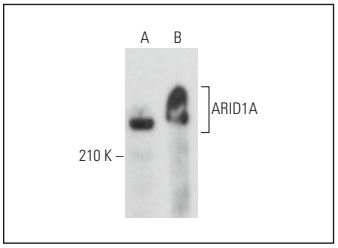
Molecular Weight of ARID1A: 165-320 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, Y79 cell lysate: sc-2240 or HEL 92.1.7 nuclear extract.

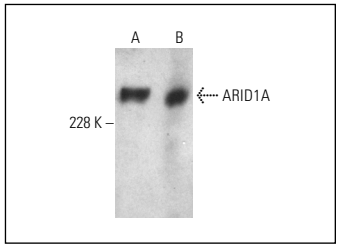
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



ARID1A (C-7): sc-373784. Western blot analysis of ARID1A expression in Y79 whole cell lysate (**A**) and HEL 92.1.7 nuclear extract (**B**).



ARID1A (C-7) HRP: sc-373784 HRP. Direct western blot analysis of ARID1A expression in SH-SY5Y (**A**) and Y79 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Laurette, P., et al. 2015. Transcription factor MITF and remodeller BRG1 define chromatin organisation at regulatory elements in melanoma cells. Elife 4: e06857.
2. McBride, M.J., et al. 2018. The SS18-SSX fusion oncoprotein hijacks BAF complex targeting and function to drive synovial sarcoma. Cancer Cell 33: 1128-1141.e7.
3. Hong, A.L., et al. 2019. Renal medullary carcinomas depend upon SMARCB1 loss and are sensitive to proteasome inhibition. Elife 8: e44161.
4. Selvanathan, S.P., et al. 2019. EWS-FLI1 modulated alternative splicing of ARID1A reveals novel oncogenic function through the BAF complex. Nucleic Acids Res. 47: 9619-9636.
5. Inoue, D., et al. 2019. Spliceosomal disruption of the non-canonical BAF complex in cancer. Nature 574: 432-436.
6. Elkhadragy, L., et al. 2021. Generation of genetically tailored porcine liver cancer cells by CRISPR/Cas9 editing. Biotechniques 70: 37-48.
7. Kenny, C., et al. 2021. Global chromatin changes resulting from single-gene inactivation-the role of SMARCB1 in malignant rhabdoid tumor. Cancers 13: 2561.
8. Erfani, M., et al. 2021. ARID1A regulates E-cadherin expression in colorectal cancer cells: a promising candidate therapeutic target. Mol. Biol. Rep. 48: 6749-6756.
9. Kang, X., et al. 2023. Liposomal DQ in combination with copper inhibits ARID1A mutant ovarian cancer growth. Biomolecules 13: 744.
10. He, T., et al. 2024. Targeting the mSWI/SNF complex in POU2F-POU2AF transcription factor-driven malignancies. Cancer Cell 42: 1336-1351.e9.

RESEARCH USE

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