SANTA CRUZ BIOTECHNOLOGY, INC.

ARID3A (A-4): sc-398367

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ARID3A, also known as DRIL1 in humans and Bright (for B cell regulator of IgH transcription) in mice, are the mammalian homologs of the *Drosophila* Dri (dead ringer) protein. ARID3A is developmentally regulated and is expressed in a restricted set of cells, including differentiating cells of the gut and salivary glands. ARID3A represents a member of a unique family of transcriptional activators that shares sequence similarity to proteins of SWI/SNF complexes; it contains an A/T-rich DNA-binding (ARID) domain and a distinct domain involved in tetramerization. The gene encoding ARID3A is linked to a marker of Peutz-Jeghers syndrome, which is an autosomal-dominant disorder characterized by melanocytic macules of the lips, multiple gastrointestinal hamartomatous polyps and an increased risk for various neoplasms, including gastrointestinal cancer. E2FBP1 (E2F-1 binding protein 1) is identical to ARID3A in the carboxy-terminal region. E2FBP1 appears to lack DNA binding and transactivation domains, and it functions to regulate the transcription of proteins involved in cell proliferation by binding to the transcription factor E2F-1.

CHROMOSOMAL LOCATION

Genetic locus: ARID3A (human) mapping to 19p13.3; Arid3a (mouse) mapping to 10 C1.

SOURCE

ARID3A (A-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 565-592 at the C-terminus of ARID3A 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-398367 X, 200 µg/0.1 ml.

ARID3A (A-4) is available conjugated to agarose (sc-398367 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398367 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398367 PE), fluorescein (sc-398367 FITC), Alexa Fluor® 488 (sc-398367 AF488), Alexa Fluor® 546 (sc-398367 AF546), Alexa Fluor® 594 (sc-398367 AF594) or Alexa Fluor® 647 (sc-398367 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398367 AF680) or Alexa Fluor® 790 (sc-398367 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398367 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

ARID3A (A-4) is recommended for detection of ARID3A 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 ARID3A siRNA (h): sc-35222, ARID3A siRNA (m): sc-35223, ARID3A shRNA Plasmid (h): sc-35222-SH, ARID3A shRNA Plasmid (m): sc-35223-SH, ARID3A shRNA (h) Lentiviral Particles: sc-35222-V and ARID3A shRNA (m) Lentiviral Particles: sc-35223-V.

ARID3A (A-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

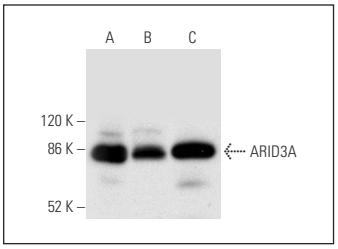
Molecular Weight of ARID3A: 80 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, Hep G2 cell lysate: sc-2227 or IB4 whole cell lysate: sc-364780.

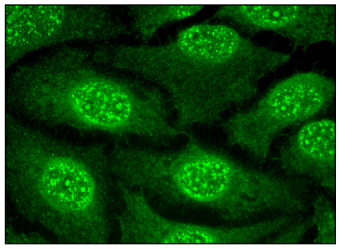
RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ARID3A (A-4): sc-398367. Western blot analysis of ARID3A expression in K-562 nuclear extract (**A**) and IB4 (**B**) and Hep G2 (**C**) whole cell lysates.



ARID3A (A-4): sc-398367. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Schmidt, C., et al. 2021. Lipid rafts interaction of the ARID3A transcription factor with EZRIN and G-Actin regulates B-cell receptor signaling. Diseases 9: 22.

RESEARCH USE

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