

ARID3A (N-20): sc-8821

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.

REFERENCES

- DeGregori, J., et al. 1995. E2F-1 accumulation bypasses a G₁ arrest resulting from the inhibition of G₁ cyclin-dependent kinase activity. *Genes Dev.* 9: 2873-2887.
- Herrscher, R.F., et al. 1995. The immunoglobulin heavy-chain matrix-associating regions are bound by Bright: a B cell-specific *trans*-activator that describes a new DNA-binding protein family. *Genes Dev.* 9: 3067-3082.
- Zong, R.T., et al. 1995. Mutually exclusive interaction of a novel matrix attachment region binding protein and the NF- μ NR enhancer repressor. Implications for regulation of immunoglobulin heavy chain expression. *J. Biol. Chem.* 270: 24010-24018.
- Gregory, S.L., et al. 1996. Characterization of the dead ringer gene identifies a novel, highly conserved family of sequence-specific DNA-binding proteins. *Mol. Cell. Biol.* 16: 792-799.
- Amos, C.I., et al. 1997. Fine mapping of a genetic locus for Peutz-Jeghers syndrome on chromosome 9p. *Cancer Res.* 57: 3653-3656.
- Kortschak, R.D., et al. 1998. The human dead ringer/bright homolog, DRIL1: cDNA cloning, gene structure, and mapping to D19S886, a marker on 19p13.3 that is strictly linked to the Peutz-Jeghers syndrome. *Genomics* 51: 288-292.

CHROMOSOMAL LOCATION

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

SOURCE

ARID3A (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ARID3A of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG 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-8821 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-8821 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARID3A (N-20) is recommended for detection of ARID3A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

ARID3A (N-20) is also recommended for detection of ARID3A in additional species, including bovine and porcine.

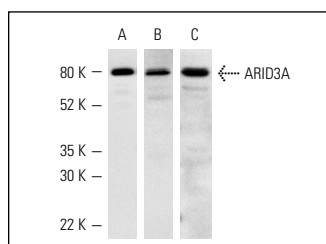
Suitable for use as control antibody for ARID3A siRNA (h): sc-35222, ARID3A siRNA (m): sc-35223, ARID3A shRNA Plasmid (h): sc-35222-SH, ARID3A shRNA Plasmid (m): sc-35223-SH, ARID3A shRNA (h) Lentiviral Particles: sc-35222-V and ARID3A shRNA (m) Lentiviral Particles: sc-35223-V.

ARID3A (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

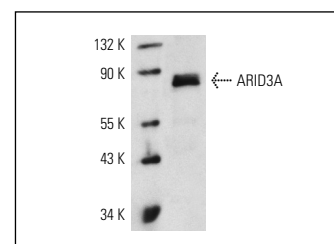
Molecular Weight of ARID3A: 80 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, K-562 nuclear extract: sc-2130 or IB4 whole cell lysate: sc-364780.

DATA



Western blot analysis of ARID3A expression in K-562 nuclear extract (A, B, C). Antibodies tested include ARID3A (N-20): sc-8821 (A), ARID3A (M-18): sc-8823 (B) and ARID3A (C-18): sc-8822 (C).



ARID3A (N-20): sc-8821. Western blot analysis of ARID3A expression in IB4 whole cell lysate.

RESEARCH USE

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

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Try **ARID3A (A-4): sc-398367** or **ARID3A (4D6): sc-101030**, our highly recommended monoclonal alternatives to ARID3A (N-20).