

ARID1A (PSG3): sc-32761

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 SNF2 α) and Brg-1 (also designated SNF2 β) 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 (PSG3) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 600-1018 of ARID1A of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ 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-32761 X, 200 μ g/0.1 ml.

ARID1A (PSG3) is available conjugated to agarose (sc-32761 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32761 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32761 PE), fluorescein (sc-32761 FITC), Alexa Fluor[®] 488 (sc-32761 AF488), Alexa Fluor[®] 546 (sc-32761 AF546), Alexa Fluor[®] 594 (sc-32761 AF594) or Alexa Fluor[®] 647 (sc-32761 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-32761 AF680) or Alexa Fluor[®] 790 (sc-32761 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ARID1A (PSG3) 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 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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 (PSG3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

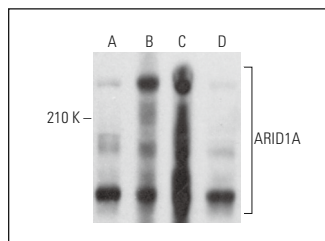
Molecular Weight of ARID1A: 165-320 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Caco-2 cell lysate: sc-2262 or K-562 whole cell lysate: sc-2203.

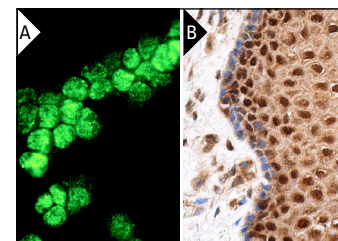
STORAGE

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

DATA



ARID1A (PSG3): sc-32761. Western blot analysis of ARID1A expression in Jurkat (A), Caco-2 (B), K-562 (C) and HL-60 (D) whole cell lysates.



ARID1A (PSG3): sc-32761. Immunofluorescence staining of methanol-fixed Y79 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing nuclear and cytoplasmic staining of squamous epithelial cells (B).

SELECT PRODUCT CITATIONS

- Flajollet, S., et al. 2007. The core component of the mammalian SWI/SNF complex SMARCD3/BAF60c is a coactivator for the nuclear retinoic acid receptor. *Mol. Cell. Endocrinol.* 270: 23-32.
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- Nakamura, K., et al. 2018. Genetic analysis and phosphoinositide 3-kinase/protein kinase B signaling pathway status in ovarian endometrioid borderline tumor samples. *Oncol. Lett.* 16: 189-194.
- Ticha, I., et al. 2019. A comprehensive evaluation of pathogenic mutations in primary cutaneous melanomas, including the identification of novel loss-of-function variants. *Sci. Rep.* 9: 17050.
- Wang, Z., et al. 2020. Dual ARID1A/ARID1B loss leads to rapid carcinogenesis and disruptive redistribution of BAF complexes. *Nat. Cancer* 1: 909-922.
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- Yao, X., et al. 2023. PBRM1-deficient PBAF complexes target aberrant genomic loci to activate the NF κ B pathway in clear cell renal cell carcinoma. *Nat. Cell Biol.* 25: 765-777.
- Maxwell, M.B., et al. 2024. ARID1A suppresses R-loop-mediated STING-type I interferon pathway activation of anti-tumor immunity. *Cell* 187: 3390-3408.e19.

RESEARCH USE

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