#12354 Store at -20°C

ARID1A/BAF250A (D2A8U) Rabbit mAb

☑ 100 µl
(10 western blots)

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Entrez-Gene ID #8289
Swiss-Prot Acc. #O14497

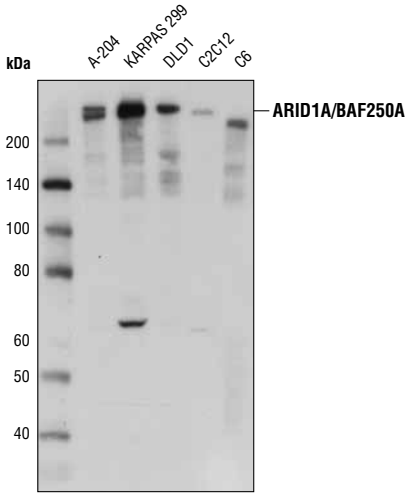
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P	H, M, R, Mk	250 kDa	Rabbit IgG**
Endogenous			

Background: ATP-dependent chromatin remodeling complexes play an essential role in the regulation of nuclear processes such as transcription and DNA replication and repair (1,2). The SWI/SNF chromatin remodeling complex consists of more than 10 subunits and contains a single molecule of either BRM or BRG1 as the ATPase catalytic subunit. The activity of the ATPase subunit disrupts histone-DNA contacts and changes the accessibility of crucial regulatory elements to the chromatin. The additional core and accessory subunits play a scaffolding role to maintain stability and provide surfaces for interaction with various transcription factors and chromatin (2-5). The interactions between SWI/SNF subunits and transcription factors, such as nuclear receptors, p53, Rb, BRCA1, and MyoD, facilitate recruitment of the complex to target genes for regulation of gene activation, cell growth, cell cycle, and differentiation processes (1,6-9).

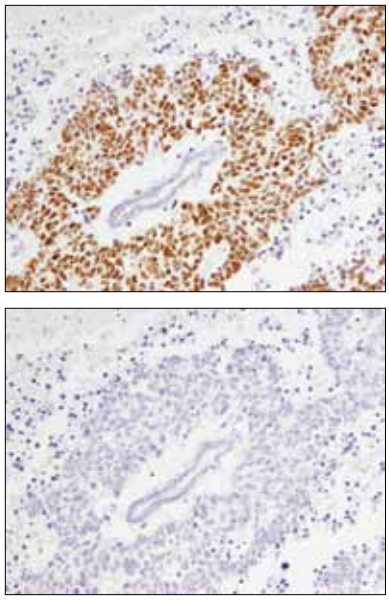
ARID1A is one of the accessory subunits of the SWI/SNF complex that is an essential part of the esBAF (mouse embryonic stem cell specific SWI/SNF complex). ARID1A is critical for ES cell pluripotency and differentiation into mesoderm-derived cardiomyocytes and adipocytes (10). In addition, ARID1A has been found to be frequently mutated in several cancers such as uterine and ovarian endometrioid carcinoma and ovarian clear cell carcinoma (11-13).

Specificity/Sensitivity: ARID1A/BAF250A (D2A8U) Rabbit mAb recognizes endogenous levels of total ARID1A/BAF250A protein. This antibody also cross-reacts with proteins of unknown origin at 65 kDa.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly1293 of human ARID1A/BAF250A protein.



Western blot analysis of extracts from various cell lines using ARID1A/BAF250A (D2A8U) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human lung adenosquamous carcinoma using ARID1A/BAF250A (D2A8U) Rabbit mAb in the presence of control peptide (upper) or antigen-specific peptide (lower). ▶

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:500†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

†*Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.*

For product specific protocols please see the web page for this product at www.cellsignal.com.

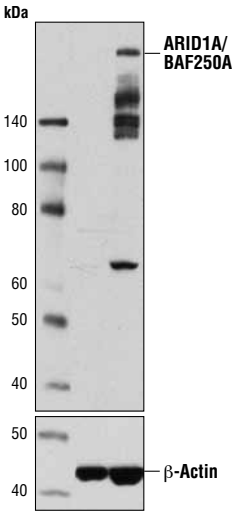
Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background References:

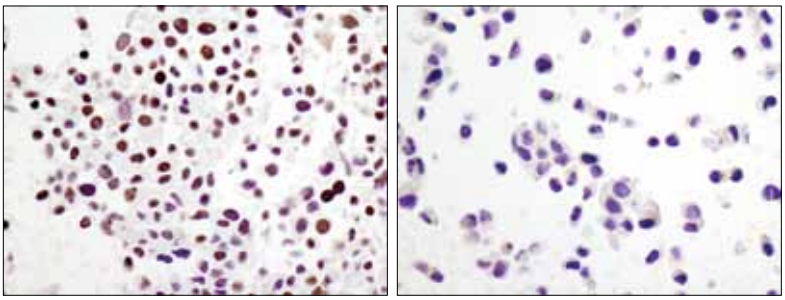
(1) Ho, L. and Crabtree, G.R. (2010) *Nature* 463, 474-84.
(2) Becker, P.B. and Hörz, W. (2002) *Annu Rev Biochem* 71, 247-73.
(3) Eberharter, A. and Becker, P.B. (2004) *J Cell Sci* 117, 3707-11.
(4) Bowman, G.D. (2010) *Curr Opin Struct Biol* 20, 73-81.
(5) Gangaraju, V.K. and Bartholomew, B. (2007) *Mutat Res* 618, 3-17.
(6) Lessard, J.A. and Crabtree, G.R. (2010) *Annu Rev Cell Dev Biol* 26, 503-32.
(7) Morettini, S. et al. (2008) *Front Biosci* 13, 5522-32.
(8) Wolf, I.M. et al. (2008) *J Cell Biochem* 104, 1580-6.
(9) Simone, C. (2006) *J Cell Physiol* 207, 309-14.
(10) Gao, X. et al. (2008) *Proc Natl Acad Sci U S A* 105, 6656-61.
(11) Jones, S. et al. (2010) *Science* 330, 228-31.
(12) Wiegand, K.C. et al. (2010) *N Engl J Med* 363, 1532-43.
(13) Guan, B. et al. (2011) *Am J Surg Pathol* 35, 625-32.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Western blot analysis of T-47D and Jurkat cell extracts using ARID1A/BAF250A (D2A8U) Rabbit mAb (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower). Additional ARID1A/BAF250A degradation products may be detected in some cell extracts between 135kDa-250kDa, which are absent in the ARID1A/ BAF250A negative T-47D cell line.



Immunohistochemical analysis of paraffin-embedded cell pellets, COS-7 (left) or T-47D (right), using ARID1A/ BAF250A (D2A8U) Rabbit mAb.