

**ARID1A/BAF250A (D2A8U) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P, ChIP	H M R Mk	Endogenous	270	Rabbit IgG	#O14497	8289

**Product Usage Information**

For optimal ChIP results, use 5 µl of antibody and 10 µg of chromatin (approximately 4 x 10<sup>6</sup> cells) per IP. This antibody has been validated using SimpleChIP<sup>®</sup> Enzymatic Chromatin IP Kits.

**Application**

Western Blotting  
Immunohistochemistry (Paraffin)  
Chromatin IP

**Dilution**

1:1000  
1:500 - 1:2000  
1:100

**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.

For a carrier free (BSA and azide free) version of this product see product #87655.

**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.

**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).

**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. Guan, B. et al. (2011) *Am J Surg Pathol* 35, 625-32.
11. Gao, X. et al. (2008) *Proc Natl Acad Sci U S A* 105, 6656-61.
12. Jones, S. et al. (2010) *Science* 330, 228-31.
13. Wiegand, K.C. et al. (2010) *N Engl J Med* 363, 1532-43.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **ChIP:** Chromatin IP

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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