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ARID1A Antibody
Catalog # ASC11922

Specification

ARID1A Antibody - Product Information

Application	**IHC**
Primary Accession	O14497
Other Accession	NP_006006, 8289
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 133, 227, 251 kDa; Observed: 130, 260 kDa KDa**
Application Notes	**ARID1A antibody can be used for detection of ARID1A by Western blot at 1 - 2 µg/mL. For immunofluorescence start at 20 µg/mL.**

ARID1A Antibody - Additional Information

Gene ID	**8289**

Target/Specificity
ARID1A antibody was raised against an 18 amino acid peptide near the amino terminus of human ARID1A.

The immunogen is located within amino acids 580 - 630 of ARID1A.

Reconstitution & Storage
ARID1A antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
ARID1A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ARID1A Antibody - Protein Information

Name ARID1A

Synonyms BAF250, BAF250A, C1orf4, OSA1, SMARCF1

Function
Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). Component of SWI/SNF chromatin remodeling complexes that carry out key enzymatic activities, changing chromatin structure by altering DNA-histone contacts within a nucleosome in an ATP-dependent manner. Binds DNA non-specifically. Belongs to the neural progenitors- specific chromatin remodeling complex (npBAF complex) and the neuron- specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a postmitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to postmitotic neurons requires a switch in subunit

composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth (By similarity).

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00355, ECO:0000269|PubMed:11318604, ECO:0000269|PubMed:26614907}

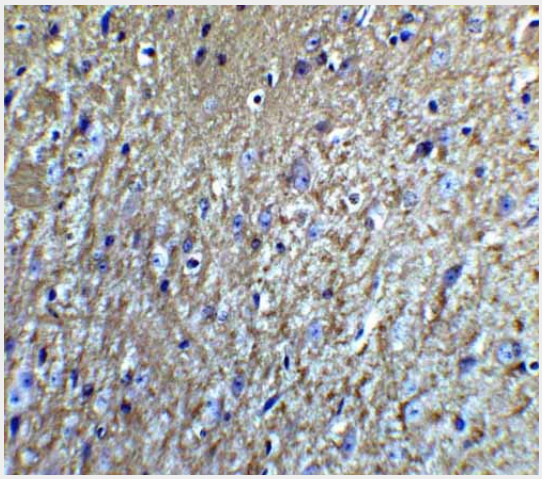
Tissue Location
Highly expressed in spleen, thymus, prostate, testis, ovary, small intestine, colon, and PBL, and at a much lower level in heart, brain, placenta, lung, liver, skeletal muscle, kidney, and pancreas.

ARID1A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ARID1A Antibody - Images



Immunohistochemistry of Neurturin in mouse brain tissue with Neurturin Antibodyat 5 µg/mL.

ARID1A Antibody - Background

The ARID1A protein is a member of the SWI/SNF family, whose members are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. ARID1A is part of the large ATP-dependent chromatin remodeling complex SNF/SWI, which is required for transcriptional activation of genes normally repressed by chromatin (1). It possesses a DNA-binding

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domain that can specifically bind an AT-rich DNA sequence known to be recognized by a SNF/SWI complex at the beta-globin locus. The C-terminus of the protein can stimulate glucocorticoid receptor-dependent transcriptional activation. It is thought that ARID1A confers specificity to the SNF/SWI complex and may recruit the complex to its targets through either protein-DNA or protein-protein interactions (2).

ARID1A Antibody - References

Martens JA and Winston F. Recent advances in understanding chromatin remodeling by Swi/Snf complexes. Curr. Opin. Genet. Dev. 2003; 13:136-42.
Nie Z, Xue Y, Yang D, et al. A specificity and targeting subunit of a human SWI/SNF family-related chromatin-remodeling complex. Mol. Cell. Biol. 2000; 20:8879-88.