

Product datasheet

Anti-ARID1A antibody [2035C5 $\alpha$ ] ab50878

2 References 3 Images

Overview

<b>Product name</b>	Anti-ARID1A antibody [2035C5a]
<b>Description</b>	Mouse monoclonal [2035C5a] to ARID1A
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, Flow Cyt, Dot blot
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment (Human)

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
<b>Storage buffer</b>	Preservative: 0.05% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Filtered through a 0.22 $\mu$ m membrane.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	2035C5a
<b>Isotype</b>	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab50878** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 245 kDa.

Application	Abreviews	Notes
Flow Cyt		Use 1µg for 10 <sup>6</sup> cells. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
Dot blot		Use at an assay dependent concentration.

## Target

### Function

Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). Binds DNA non-specifically. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated transrepression of the CYP27B1 gene. 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 post-mitotic 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 post-mitotic 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.

### Tissue specificity

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.

### Sequence similarities

Contains 1 ARID domain.

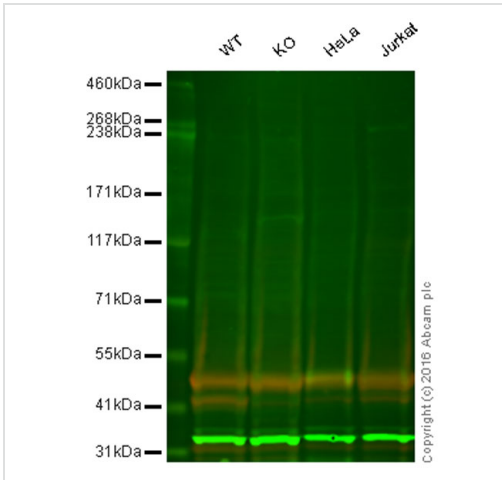
### Post-translational modifications

Phosphorylated upon DNA damage, probably by ATM or ATR.

### Cellular localization

Nucleus.

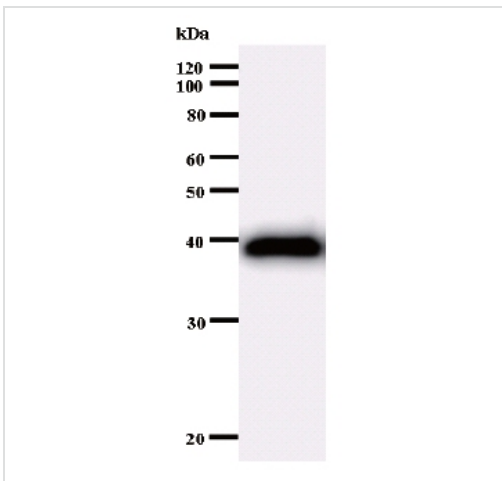
## Images



Western blot - Anti-ARID1A antibody [2035C5a] (ab50878)

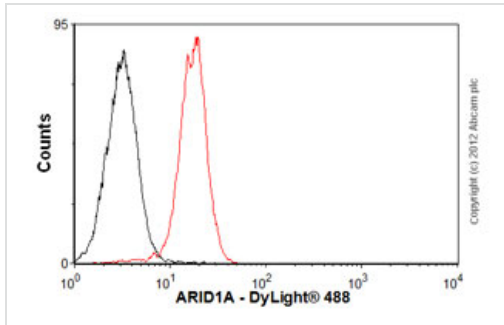
**Lane 1:** Wild-type HAP1 cell lysate (40 µg)  
**Lane 2:** ARID1A knockout HAP1 cell lysate (40 µg)  
**Lane 3:** Caco2 cell lysate (20 µg)  
**Lane 4:** HeLa cell lysate (20 µg)  
**Lanes 1 - 4:** Merged signal (red and green).  
 Green - ab50878 observed at n/a kDa. Red - loading control, [ab18251](#), observed at 42 kDa.

ab50878 was shown not to react with ARID1A when ARID1A knockout samples were used. Wild-type and ARID1A knockout samples were subjected to SDS-PAGE. Ab50878 and [ab18251](#) (loading control to alpha tubulin) were diluted at 2.5 µg/ml and 1:10,000 dilution respectively and incubated overnight at 4C. Blots were developed with IRDye® 800CW Goat anti-Mouse IgG (H + L) and IRDye® 680 Goat anti-Rabbit IgG (H + L) secondary antibodies at 1:10,000 dilution for 1 hour at room temperature before imaging.



Western blot - ARID1A antibody [2035C5a] (ab50878)

Anti-ARID1A antibody [2035C5a] (ab50878) + immunizing peptide  
**Predicted band size:** 245 kDa  
**Observed band size:** 40 kDa



Flow Cytometry - Anti-ARID1A antibody [2035C5a]  
(ab50878)

Overlay histogram showing Caco-2 cells stained with ab50878 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab50878, 1 $\mu$ g/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2 $\mu$ g/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.

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