10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Mouse Smarcd1 Antibody(Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19639c

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | Q61466 |
| **Other Accession** | Q96GM5, Q2TBN1, NP_114030.2 |
| **Reactivity** | Mouse |
| **Predicted** | Bovine, Human, Rat, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB40713 |
| **Calculated MW** | 58245 |
| **Antigen Region** | 309-335 |

## Additional Information

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| **Gene ID** | 83797 |
| **Other Names** | SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily D member 1, 60 kDa BRG-1/Brm-associated factor subunit A, BRG1-associated factor 60A, BAF60A, Protein D15KZ1, SWI/SNF complex 60 kDa subunit, Smarcd1, Baf60a, D15Kz1 |
| **Target/Specificity** | This Mouse Smarcd1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 309-335 amino acids from the Central region of mouse Smarcd1. |
| **Dilution** | WB~~1:1000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | Mouse Smarcd1 Antibody(Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | Smarcd1 |

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| **Synonyms** | Baf60a, D15Kz1 |
| **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 (By similarity). 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 (PubMed:17640523). Has a strong influence on vitamin D-mediated transcriptional activity from an enhancer vitamin D receptor element (VDRE). May be a link between mammalian SWI-SNF-like chromatin remodeling complexes and the vitamin D receptor (VDR) heterodimer. Mediates critical interactions between nuclear receptors and the BRG1/SMARCA4 chromatin-remodeling complex for transactivation (By similarity). |
| **Cellular Location** | Nucleus. |
| **Tissue Location** | Ubiquitous. |

## Background

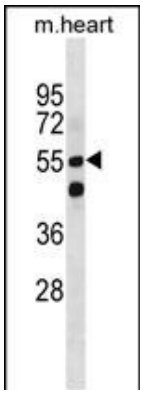
Smarcd1 is involved in chromatin remodeling. Has a strong influence on the Vitamin D-mediated transcriptional activity from an enhancer Vitamin D receptor element (VDRE). May be a link between mammalian SWI-SNF-like chromatin remodeling complexes and the vitamin D receptor (VDR) heterodimer. Mediates critical interactions between nuclear receptors and the BRG1/SMARCA4 chromatin-remodeling complex for transactivation. 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 (By similarity). 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.

## References

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Ho, L., et al. Proc. Natl. Acad. Sci. U.S.A. 106(13):5181-5186(2009)
Li, S., et al. Cell Metab. 8(2):105-117(2008)

Oh, J., et al. J. Biol. Chem. 283(18):11924-11934(2008)
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## Images




Mouse Smarcd1 Antibody (Center) (Cat. #AP19639c) western blot analysis in mouse heart tissue lysates (35ug/lane).This demonstrates the Mouse Smarcd1 antibody detected the Mouse Smarcd1 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.