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# (Mouse) Smarcc1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21637b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P97496 |
| **Reactivity** | Human, Rat, Mouse |
| **Predicted** | Bovine, Canine, Rabbit |
| **Host** | Rabbit |
| **Clonality** | polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB51117 |
| **Calculated MW** | 122890 |

## Additional Information

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| **Gene ID** | 20588 |
| **Other Names** | SWI/SNF complex subunit SMARCC1, BRG1-associated factor 155, SWI/SNF complex 155 kDa subunit, SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily C member 1, SWI3-related protein, BAF155, Smarcc1, Baf155, Srg3 |
| **Target/Specificity** | This (Mouse) Smarcc1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 783-817 amino acids from the C-terminal region of Mouse Smarcc1. |
| **Dilution** | WB~~1:2000 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) Smarcc1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | Smarcc1 |
| **Synonyms** | Baf155, Srg3 |

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| **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. May stimulate the ATPase activity of the catalytic subunit of the complex. 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. |
| **Cellular Location** | Nucleus. Cytoplasm {ECO:0000250\|UniProtKB:Q92922} |
| **Tissue Location** | Highly expressed in adult brain, testis and thymus. |

## Background

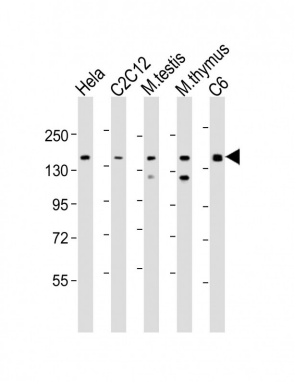
Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). May stimulate the ATPase activity of the catalytic subunit of the complex. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC 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

Jeon S.H.,et al.J. Exp. Med. 185:1827-1836(1997).
Kim J.K.,et al.Mol. Cell. Biol. 21:7787-7795(2001).
Lessard J.,et al.Neuron 55:201-215(2007).
Sweet S.M.,et al.Mol. Cell. Proteomics 8:904-912(2009).
Park J.,et al.Mol. Cell 50:919-930(2013).

## Images

All lanes : Anti-Smarcc1 Antibody (C-term) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: C2C12




whole cell lysate Lane 3: mouse testis lysate Lane 4: mouse thymus lysate Lane 5: C6 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 123 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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