

Mouse Smarcd1 Antibody(Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19639c

Specification

Mouse Smarcd1 Antibody(Center) - Product Information

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

Mouse Smarcd1 Antibody(Center) - Additional Information

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.

Mouse Smarcd1 Antibody(Center) - Protein Information

Name Smarcd1**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.

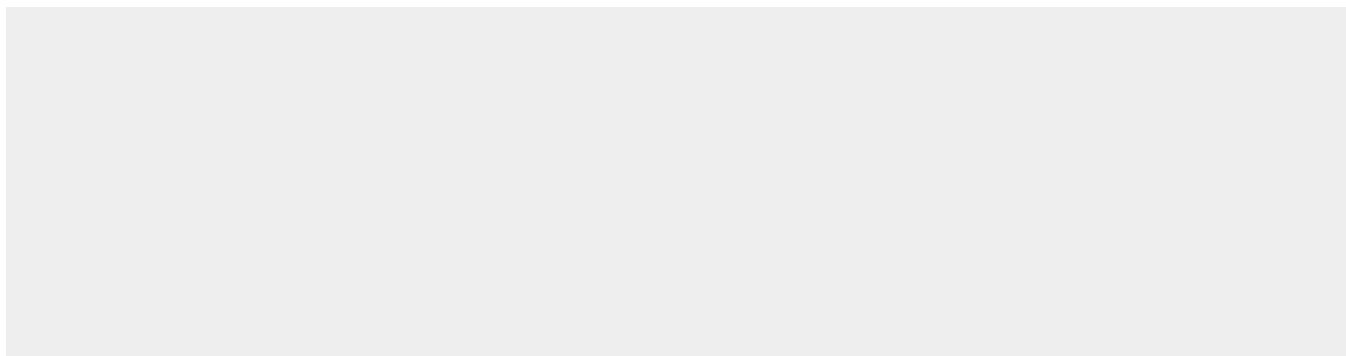
Tissue Location

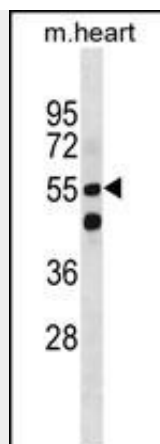
Ubiquitous.

Mouse Smarcd1 Antibody(Center) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Mouse Smarcd1 Antibody(Center) - 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).

Mouse Smarcd1 Antibody(Center) - 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.

Mouse Smarcd1 Antibody(Center) - References

- Guo, G., et al. Dev. Cell 18(4):675-685(2010)
- 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)
- Valerius, M.T., et al. Gene Expr. Patterns 8(5):297-306(2008)