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SMARCC1 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52766

Product Information

Application	WB
Primary Accession	Q92922
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	122867

Additional Information

Gene ID	6599
Other Names	AI115498;BAF 155;BAF155;BRG 1 associated factor 155;BRG1 associated factor 155;BRG1-associated factor 155;Chromatin remodeling complex BAF155 subunit;CRACC 1;CRACC1; Mammalian chromatin remodeling complex BRG 1 associated factor 155;Mammalian chromatin remodeling complex BRG1 associated factor 155;Rsc 8;Rsc8;SMARC C1;SMARCC 1;SMARCC1; SMRC1_HUMAN;SRG 3;SRG3;SWI 3;SWI/SNF complex 155 kDa subunit;SWI/SNF related matrix associated actin dependent regulator of chromatin c1;SWI/SNF related matrix associated actin dependent regulator of chromatin subfamily c member 1;SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily C member 1;SWI3.
Dilution	WB~~1:1000
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	SMARCC1 (HGNC:11104)
Synonyms	BAF155
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 (PubMed:10078207, PubMed:29374058). 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. Cytoplasm
Tissue Location	Expressed in brain, heart, muscle, placenta, lung, liver, muscle, kidney and pancreas

Background

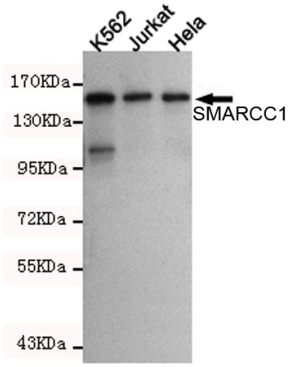
Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). May stimulate the ATPase activity of the catalytic subunit of the complex. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC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

References

Wang W.,et al.Genes Dev. 10:2117-2130(1996).
Bienvenut W.V.,et al.Submitted (JUL-2007) to UniProtKB.
Sif S.,et al.Genes Dev. 12:2842-2851(1998).
Kitagawa H.,et al.Cell 113:905-917(2003).
Brill L.M.,et al.Anal. Chem. 76:2763-2772(2004).

Images

Western blot detection of SMARCC1 in K562,Jurkat and Hela cell lysates using SMARCC1 mouse mAb (1:1000 diluted).Predicted band size:155KDa.Observed band size:155KDa.



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