

SMARCC2/BAF170 (11S2) Rabbit Monoclonal Antibody

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Catalog # AP93727

Product Information

Application	WB, IHC-P, ICC, FC, IP, IF
Primary Accession	Q8TAQ2 , Q6PDG5
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Calculated MW	132879

Additional Information

Gene ID	6601
Dilution	WB~~1:1000 IHC-P~~N/A ICC~~N/A FC~~1:10~50 IP~~N/A IF~~1:50~200
Storage Conditions	-20°C

Protein Information

Name	SMARCC2
Synonyms	BAF170
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 (PubMed:11018012). Can stimulate the ATPase activity of the catalytic subunit of these complexes (PubMed:10078207). May be required for CoREST dependent repression of neuronal specific gene promoters in non-neuronal cells (PubMed:12192000). 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). Critical regulator of

myeloid differentiation, controlling granulocytopoiesis and the expression of genes involved in neutrophil granule formation (By similarity).

Cellular Location

Nucleus.

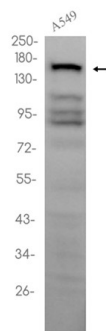
Tissue Location

Ubiquitously expressed.

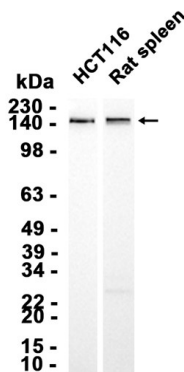
Background

The protein encoded by this gene is a member of the SWI/SNF family of proteins, whose members display helicase and ATPase activities and which are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. The encoded protein is part of the large ATP-dependent chromatin remodeling complex SNF/SWI and contains a predicted leucine zipper motif typical of many transcription factors. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Images



Western blot analysis of extracts from A549 cells using AP93727 at 1:1000.



Western blot analysis of extracts from HCT116 cells and Rat spleen tissue using AP93727 at 1:1000.

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