

SMARCD1 Rabbit mAb

Catalog # AP76715

Product Information

Application	WB, IP
Primary Accession	Q96GM5
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	58233

Additional Information

Gene ID	6602
Other Names	SMARCD1
Dilution	WB~~1/500-1/1000 IP~~N/A
Format	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.

Protein Information

Name	SMARCD1 {ECO:0000312 EMBL:AAD23390.1}
Function	<p>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:29374058, PubMed:8804307). 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). Has a strong influence on vitamin D-mediated transcriptional activity from an enhancer vitamin D receptor element (VDRE).</p>

May be a link between mammalian SWI-SNF-like chromatin remodeling complexes and the vitamin D receptor (VDR) heterodimer (PubMed:[14698202](#)). Mediates critical interactions between nuclear receptors and the BRG1/SMARCA4 chromatin-remodeling complex for transactivation (PubMed:[12917342](#)). Interacts with AKIRIN2 (By similarity).

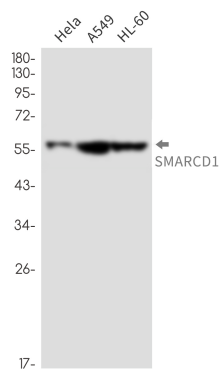
Cellular Location

Nucleus {ECO:0000269 | PubMed:8804307, ECO:0000305}

Tissue Location

Expressed in all tissues tested, including brain, heart, kidney, liver, lung, muscle, pancreas and placenta

Images



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