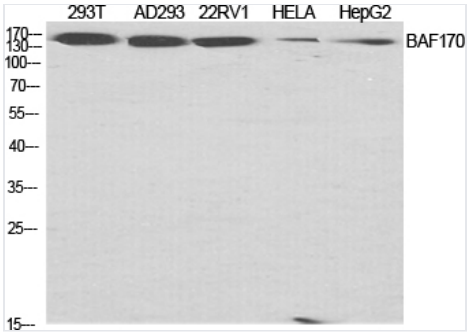
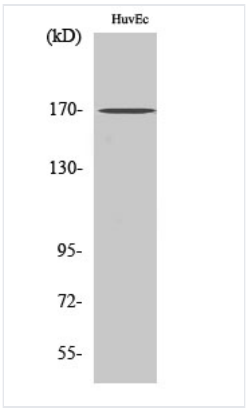
BAF170 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	BAF170, Polyclonal Antibody
Full Product Name	BAF170 Polyclonal Antibody
Product Gene Name	anti-BAF170 antibody
Product Synonym Gene Name	SMARCC2
Product Synonym Names	SMARCC2; BAF170; SWI/SNF complex subunit SMARCC2; BRG1-associated factor 170; BAF170; SWI/SNF complex 170 kDa subunit; SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily C member 2
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Molecular Weight	133kDa
Chromosome Location	Chromosome: 12; NC_000012.11 (56555636..56583351, complement). Location: 12q13.2
OMIM	601734
3D Structure	ModBase 3D Structure for Q8TAQ2
Applications Tested/Suitable for anti-BAF170 antibody	Western Blot (WB), Immunofluorescence (IF)
Related Product Information for anti-BAF170 antibody	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).
Other Notes	Small volumes of anti-BAF170 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BAF170 purchase	MBS9242807 is an antibody targeting BAF170. Also known as BAF170 Polyclonal Antibody. Reactive in Human, Mouse. Host: Rabbit.



Wester Blot (WB) of anti-BAF170 antibody
Dilution: Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.



Western Blot (WB) of anti-BAF170 antibody
Dilution: Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BAF170. It may not necessarily be applicable to this product.

NCBI GI #	194363725
NCBI GeneID	6601
NCBI Accession #	NP_001123892.1
UniProt Primary Accession #	Q8TAQ2
UniProt Secondary Accession #	Q59GV3; Q92923; Q96E12; Q96GY4; F8VTJ5
UniProt Related Accession #	Q8TAQ2
GenBank Nucleotide #	NM_001130420.1
NCBI Official Full Name	SWI/SNF complex subunit SMARCC2 isoform c
NCBI Official Synonym Full Names	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2
NCBI Official Symbol	SMARCC2
NCBI Official Synonym Symbols	Rsc8; BAF170; CRACC2
UniProt Protein Name	SWI/SNF complex subunit SMARCC2
UniProt Synonym Protein Names	BRG1-associated factor 170; BAF170; SWI/SNF complex 170 kDa subunit; SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily C member 2
Protein Family	SWI/SNF complex
UniProt Gene Name	SMARCC2
UniProt Synonym Gene Names	BAF170; BAF170
UniProt Entry Name	SMRC2_HUMAN
NCBI Protein Information	SWI/SNF complex subunit SMARCC2; SWI3-like protein; BRG1-associated factor 170; SWI/SNF complex 170 kDa subunit; chromatin remodeling complex BAF170 subunit; mammalian chromatin remodeling complex BRG1-associated factor 170; SWI/SNF-related matrix-associa
NCBI Summary for BAF170	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]

UniProt Comments for BAF170	SMARCC2: a core component of the BAF (SWI/SNF) complex. This family of complexes remodels chromatin structures, enabling transcription factors to gain access to DNA. They play important roles in cell proliferation and differentiation, in cellular antiviral activities and inhibition of tumor formation. The BAF complex is able to create a stable, altered form of chromatin that constrains fewer negative supercoils than normal. This change in supercoiling is due to the conversion of up to one-half of the nucleosomes on polynucleosomal arrays into asymmetric structures, termed altosomes, each composed of 2 histones octamers. May be required for CoREST dependent repression of neuronal specific gene promoters in non-neuronal cells. 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 BAF53A and PHF10, are exchanged for homologous alternative BAF53B and BAF45B or 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. 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. Component of 6 multiprotein chromatin-remodeling complexes: Swi/Snf-A (BAF), Swi/Snf-B (PBAF), Brm, Brg1(I), WINAC and Brg1(II). Each of the five complexes contains a catalytic subunit (either SMARCA4 or SMARCA2), and at least SMARCE1, BAF53A or BAF53B, SMARCC2 and SMARCB1. Other subunits specific to each of the complexes may also be present. Component of the BAF (hSWI/SNF) complex, which includes at least actin (ACTB), ARID1A, ARID1B, SMARCA2, SMARCA4, BAF53A, BAF53B, SMARCE1 SMARCC1, SMARCC2, SMARCB1, and one or more of SMARCD1, SMARCD2, or SMARCD3. In muscle cells, the BAF complex also contains DPF3. May also interact with the SIN3A histone deacetylase transcription repressor complex in conjunction with SMARCA2 and SMARCA4. The minimal complex composed of SMARCC1 and SMARCA4 seems to be able to associate with cyclin such as CCNE1 or transcription factors such as KLF1 or GATA1. Ubiquitously expressed. Belongs to the SMARCC family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Transcription, coactivator/corepressor; DNA-binding Chromosomal Location of Human Ortholog: 12q13.2 Cellular Component: nucleoplasm; SWI/SNF complex; protein complex; transcriptional repressor complex; nuclear chromatin Molecular Function: protein binding; nucleosomal DNA binding; transcription coactivator activity Biological Process: regulation of transcription from RNA polymerase II promoter; chromatin remodeling; establishment and/or maintenance of chromatin architecture; transcription, DNA-dependent; nucleosome disassembly; positive regulation of transcription, DNA-dependent; regulation of transcription from RNA polymerase II promoter involved in forebrain neuron fate commitment; ATP-dependent chromatin remodeling; negative regulation of transcription from RNA polymerase II promoter; negative regulation of transcription, DNA-dependent
Research Articles on BAF170	**1.** Identification of frameshift mutations in the SMARCC2 gene in gastric and colorectal cancers with microsatellite instability.
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