



## Rabbit Anti-BAF53A antibody

SL12568R

<b>Product Name:</b>	BAF53A
<b>Chinese Name:</b>	肌动蛋白样蛋白6A抗体
<b>Alias:</b>	53 kDa BRG1 associated factor A; Actin like 6A; Actin like protein 6A; Actin related protein; Actin related protein Baf53a; ACTL 6; ACTL 6A; ACTL6; ACTL6A; ARPN BETA; ArpNbeta; BAF 53; BAF 53A; BAF complex 53 kDa subunit; BAF53; BRG1 associated factor 53A; BRG1 associated factor; BRG1/brm associated factor 53A; hArpN beta; INO80K; MGC5382; ACL6A HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Chicken,Pig,Horse,
<b>Applications:</b>	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	47kDa
<b>Cellular localization:</b>	The nucleus
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human BAF53A:101-200/429
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	The SWI/SNF complex regulates gene expression via ATP-dependent chromatin remodeling. Brm (SNF2-a), Brg-1 (SNF2-b), Ini1 (integrase interactor 1, SNF5), BAF53 (ARPN beta), BAF57, BAF155 (SRG3), and BAF170 make up the functional core.

BAF53 homologues from yeast to humans contain a conserved N-terminal motif, which contains residues at serine 2 and tyrosine 6, which play important roles in BAF53 activity. The BAF53 protein shuttles between the nucleus and cytoplasm. BAF53 also forms a complex with TIP49 and TIP48, which mediates c-Myc oncogenic activity.

**Function:**

This protein is a family member of actin-related proteins (ARPs), which share significant amino acid sequence identity to conventional actins. Both actins and ARPs have an actin fold, which is an ATP-binding cleft, as a common feature. The ARPs are involved in diverse cellular processes, including vesicular transport, spindle orientation, nuclear migration and chromatin remodeling. This protein is a 53 kDa subunit of the BAF (BRG1/brm-associated factor) complex in mammals, which is functionally related to SWI/SNF complex in *S. cerevisiae* and *Drosophila*; the latter is thought to facilitate transcriptional activation of specific genes by antagonizing chromatin-mediated transcriptional repression. Together with beta-actin, it is required for maximal ATPase activity of BRG1, and for the association of the BAF complex with chromatin/matrix. It is required for maximal ATPase activity of SMARCA4/BRG1 and for association of the SMARCA4/BRG1 containing remodelling complex BAF with chromatin/nuclear matrix. It is a component of the NuA4 histone acetyltransferase (HAT) complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histone H4 and H2A. This modification may both alter nucleosome - DNA interactions and promote interaction of the modified histones with other proteins which positively regulate transcription. This complex may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair. NuA4 may also play a direct role in DNA repair when recruited to sites of DNA damage.

**Subunit:**

Component of numerous complexes with chromatin remodeling and histone acetyltransferase activity. Component of the NuA4 histone acetyltransferase complex which contains the catalytic subunit KAT5/TIP60 and the subunits EP400, TRRAP/PAF400, BRD8/SMAP, EPC1, DMAP1/DNMAP1, RUVBL1/TIP49, RUVBL2, ING3, actin, ACTL6A/BAF53A, MORF4L1/MRG15, MORF4L2/MRGX, MRGBP, YEATS4/GAS41, VPS72/YL1 and MEAF6. The NuA4 complex interacts with MYC and the adenovirus E1A protein. Component of a NuA4-related complex which contains EP400, TRRAP/PAF400, SRCAP, BRD8/SMAP, EPC1, DMAP1/DNMAP1, RUVBL1/TIP49, RUVBL2, actin, ACTL6A/BAF53A, VPS72 and YEATS4/GAS41. Component of the BAF complex, which includes at least actin (ACTB), ARID1A, ARID1B/BAF250, SMARCA2, SMARCA4/BRG1/BAF190A, ACTL6A/BAF53, ACTL6B/BAF53B, SMARCE1/BAF57, SMARCC1/BAF155, SMARCC2/BAF170, SMARCB1/SNF5/INI1, and one or more of SMARCD1/BAF60A, SMARCD2/BAF60B, or SMARCD3/BAF60C. In muscle cells, the BAF complex also contains DPF3. Component of the BAF53 complex, at least composed of ACTL6A/BAF53A, RUVBL1/TIP49, SMARCA2/BRM/BAF190B, and TRRAP/PAF400, and which may also include a HAT activity related to, but distinct

from, that of KAT5. ACTL6A interacts with SMARCA4/BRG1/BAF190A. Component of the chromatin remodeling INO80 complex; specifically part of a complex module associated with the DBINO domain of INO80. Component of the WINAC complex, at least composed of SMARCA2, SMARCA4, SMARCB1, SMARCC1, SMARCC2, SMARCD1, SMARCE1, ACTL6A, BAZ1B/WSTF, ARID1A, SUPT16H, CHAF1A and TOP2B. Component of neural progenitors-specific chromatin remodeling complex (npBAF complex) composed of at least, ARID1A/BAF250A or ARID1B/BAF250B, SMARCD1/BAF60A, SMARCD3/BAF60C, SMARCA2/BRM/BAF190B, SMARCA4/BRG1/BAF190A, SMARCB1/BAF47, SMARCC1/BAF155, SMARCE1/BAF57, SMARCC2/BAF170, PHF10/BAF45A, ACTL6A/BAF53A and actin. Interacts with PHF10/BAF45A (By similarity).

**Subcellular Location:**

Nuclear

**Similarity:**

Belongs to the actin family.

**SWISS:**

O96019

**Gene ID:**

86

**Database links:**

[Entrez Gene: 86](#)Human

[Entrez Gene: 56456](#)Mouse

[Entrez Gene: 361925](#)Rat

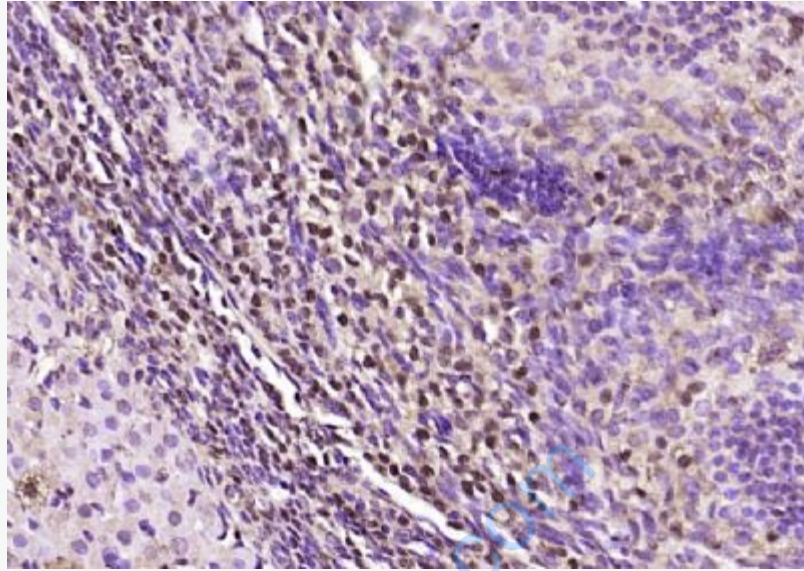
[Oimim: 604958](#)Human

[SwissProt: O96019](#)Human

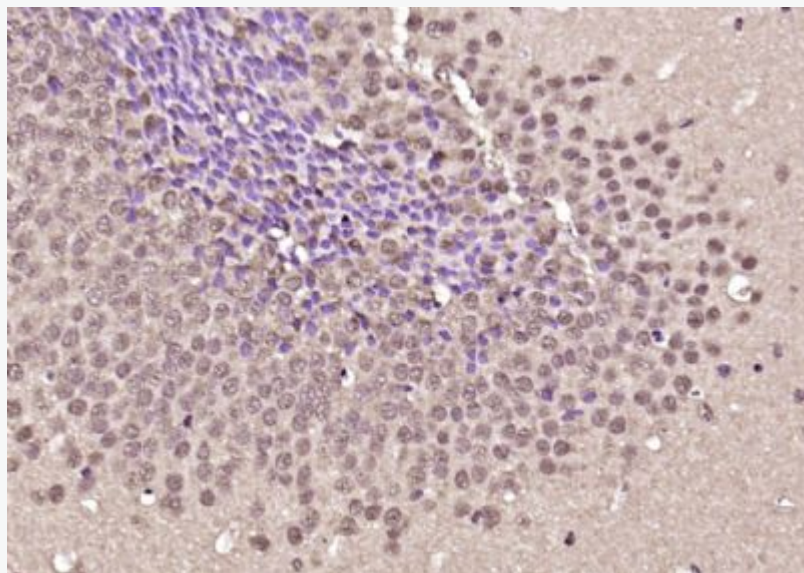
[SwissProt: Q9Z2N8](#)Mouse

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Paraformaldehyde-fixed, paraffin embedded (Mouse ovary); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (BAF53A) Polyclonal Antibody, Unconjugated (SL12568R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



**Picture:**

Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (BAF53A) Polyclonal Antibody, Unconjugated (SL12568R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

[www.sunlongbiotech.com](http://www.sunlongbiotech.com)