
Summary

Production Name	BAF53 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ACTL6A ACTL6A; BAF53; BAF53A; INO80K; Actin-like protein 6A; 53 kDa BRG1-associated factor A;
Alternative Names	Actin-related protein Baf53a; ArpNbeta; BRG1-associated factor 53A; BAF53A; INO80 complex subunit K
Gene ID	86.0
SwissProt ID	O96019.The antiserum was produced against synthesized peptide derived from human ACTL6A. AA range:201-250

Application

Dilution Ratio	WB 1:500 - 1:2000. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
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Molecular Weight 47kD

Background

This gene encodes 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 gene encodes a 53 kDa subunit protein 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. Three transcript variants that encode two different protein function: Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). Required for maximal ATPase activity of SMARCA4/BRG1 and for association of the SMARCA4/BRG1 containing remodeling complex BAF with chromatin/nuclear matrix. Component of the NuA4 histone acetyltransferase (HAT) complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histones 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. 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. Similarity: Belongs to the actin family. Subunit: Component of numerous complexes with chromatin remodeling and histone acetyltransferase activity. Component of the NuA4 histone acetyltransferase complex which contains the catalytic subunit HTATIP/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 EAF6. 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, 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, and TRRAP/PAF400, and which may also include a HAT activity related to, but distinct from, that of HTATIP. ACTL6A interacts with SMARCA4/BRG1. Component of the chromatin-remodeling INO80 complex, at least composed of ACTL6A, ACTR5, ACTR8, RVBL1, RVBL2, INO80, INO80B, INO80C, INO80D and INO80E. Component of the WINAC complex, at least

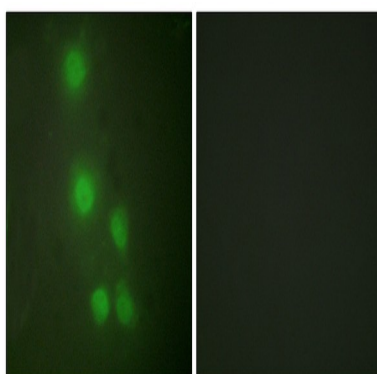
Product Name: BAF53 Rabbit Polyclonal Antibody
Catalog #: APRab07431



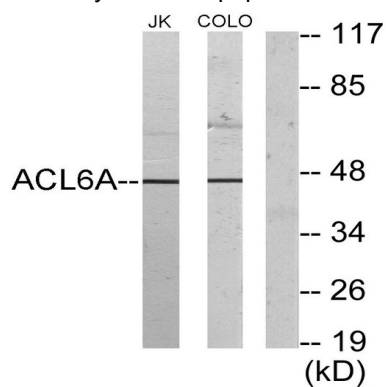
composed of SMARCA2, SMARCA4, SMARCB1, SMARCC1, SMARCC2, SMARCD1, SMARCE1, ACTL6A, BAZ1B/WSTF, ARID1A, SUPT16H, CHAF1A and TOP2B,

Research Area

Image Data



Immunofluorescence analysis of HUVEC cells, using ACTL6A Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from Jurkat and COLO205 cells, using ACTL6A Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.