

**ARG63529**  
**anti-ACTL6A / BAF53A antibody**Package: 100 µg  
Store at: -20°C

### Summary

Product Description	Goat Polyclonal antibody recognizes ACTL6A / BAF53A
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Cow, Dog, Pig
Tested Application	WB
Specificity	This antibody is expected to recognise both BAF53A and BAF53B, which are almost identical. Reported variants represent identical protein (NP_817126.1; NP_829888.1).
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	ACTL6A / BAF53A
Species	Human
Immunogen	YEEGGKQCVERKCP
Conjugation	Un-conjugated
Alternate Names	BAF53A; ACTL6; 53 kDa BRG1-associated factor A; ARPN-BETA; Actin-related protein Baf53a; BRG1-associated factor 53A; INO80K; Actin-like protein 6A; Arp4; INO80 complex subunit K; ArpNbeta

### Application Instructions

Application table	Application	Dilution
	WB	1 - 3 µg/ml

**Application Note** WB: Recommend incubate at RT for 1h.  
\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

### Properties

Form	Liquid
Purification	Purified from goat serum by antigen affinity chromatography.
Buffer	Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	0.5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

---

Database links

[GeneID: 86 Human](#)

[Swiss-port # O96019 Human](#)

Gene Symbol

ACTL6A

Gene Full Name

actin-like 6A

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 isoforms have been described. [provided by RefSeq, Jul 2008]

Function

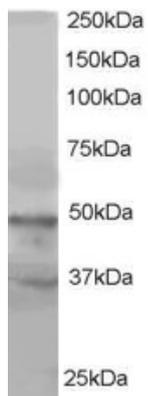
Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). Required for maximal ATPase activity of SMARCA4/BRG1/BAF190A and for association of the SMARCA4/BRG1/BAF190A containing remodeling complex BAF with chromatin/nuclear matrix. Belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and is required for the proliferation of neural progenitors. 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 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). 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. Putative core component of the chromatin remodeling INO80 complex which is involved in transcriptional regulation, DNA replication and probably DNA repair. [UniProt]

Research Area

Signaling Transduction antibody

Calculated Mw

47 kDa



ARG63529 anti-ACTL6A / BAF53A antibody WB image

Western blot: 35 µg of HeLa lysate stained with ARG63529 anti-ACTL6A / BAF53A antibody at 1 µg/ml dilution.