

KD-Validated Anti-Actin like 6A Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI2348**Specification****KD-Validated Anti-Actin like 6A Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	O96019
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 47 kDa ; Observed, 47 kDa
Gene Name	ACTL6A
Aliases	ACTL6A; Actin Like 6A; BAF53A; INO80K; BRG1-Associated Factor 53A; INO80 Complex Subunit K; SMARCN1; 53 KDa BRG1-Associated Factor A; Actin-Related Protein Baf53a; BAF Complex 53 KDa Subunit; Actin-Related Protein; Actin-Like Protein 6A; ArpNbeta; ACTL6; BAF53; Arp4; HArpN Beta; ARPN-BETA; Baf53a; Actl6; ARP4
Immunogen	A synthesized peptide derived from human ACTL6A

KD-Validated Anti-Actin like 6A Rabbit Monoclonal Antibody - Additional Information

Gene ID	86
Other Names	Actin-like protein 6A, 53 kDa BRG1-associated factor A, Actin-related protein Baf53a, ArpNbeta, BRG1-associated factor 53A, BAF53A, INO80 complex subunit K, ACTL6A, BAF53, BAF53A, INO80K

KD-Validated Anti-Actin like 6A Rabbit Monoclonal Antibody - Protein Information**Name** ACTL6A**Synonyms** BAF53, BAF53A, INO80K**Function**

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. 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 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). 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.

Cellular Location

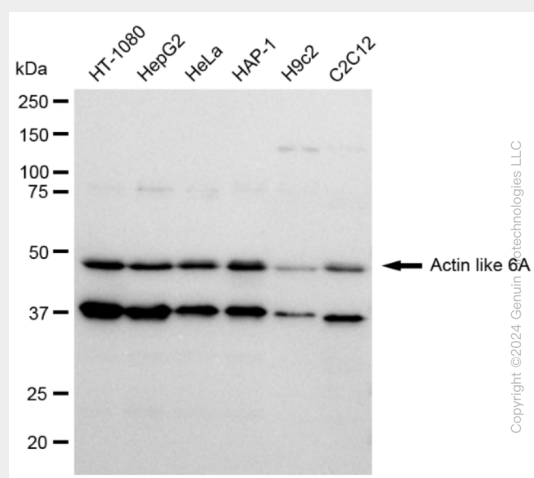
Nucleus.

KD-Validated Anti-Actin like 6A Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

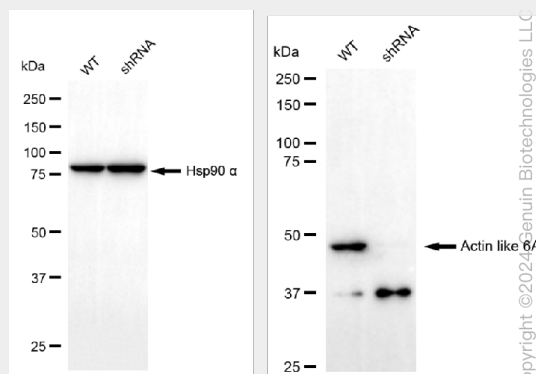
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-Actin like 6A Rabbit Monoclonal Antibody - Images

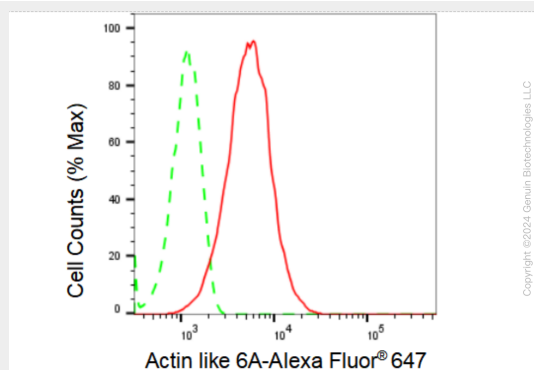


Western blotting analysis using anti-Actin like 6A antibody (Cat#AGI2348). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with

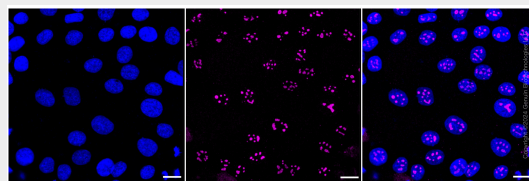
anti-Actin like 6A antibody (Cat#AGI2348, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Actin like 6A antibody (Cat#AGI2348). Actin like 6A expression in wild type (WT) and actin like 6A shRNA knockdown (KD) HeLa cells with 30 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with anti-Actin like 6A antibody (Cat#AGI2348, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Actin like 6A expression in HepG2 cells using Actin like 6A antibody (Cat#AGI2348, 1:2,000). Green, isotype control; red, Actin like 6A.



Immunocytochemical staining of HT-1080 cells with Actin like 6A antibody (Cat#AGI2348, 1:1,000). Nuclei were stained blue with DAPI; Actin like 6A was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μ m.