

Anti-BAF53 antibody



Description Rabbit polyclonal to BAF53.

Model STJ91804

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, IF, IHC, WB

ImmunogenSynthesized peptide derived from human BAF53

Immunogen Region 180-260 aa, Internal

Gene ID <u>86</u>

Gene Symbol ACTL6A

Dilution range WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:10000

Specificity BAF53 Polyclonal Antibody detects endogenous levels of BAF53 protein.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Actin-like protein 6A 53 kDa BRG1-associated factor A Actin-related protein

Baf53a ArpNbeta BRG1-associated factor 53A BAF53A INO80 complex

subunit K

Molecular Weight 47 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:241240MIM:604958</u>

Alternative 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

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 . 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 Localization Nucleus