

Product datasheet for **TA386874M**

ACTL6A Rabbit Polyclonal Antibody

Product data:

| | |
|-----------------------|---|
| Product Type: | Primary Antibodies |
| Applications: | ChIP, IHC, WB |
| Recommended Dilution: | Recommended dilution: WB:1:1000-1:5000, IHC:1:20-1:200 |
| Reactivity: | Mouse, Human |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Polyclonal |
| Immunogen: | Recombinant Human Actin-like protein 6A protein (1-280AA) |
| Formulation: | PBS with 0.02% sodium azide, 50% glycerol, pH7.3. |
| Concentration: | lot specific |
| Purification: | Antigen Affinity Purified |
| Conjugation: | Unconjugated |
| Storage: | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |
| Stability: | 1 year from dispatch. |
| Database Link: | <u>O96019</u> |

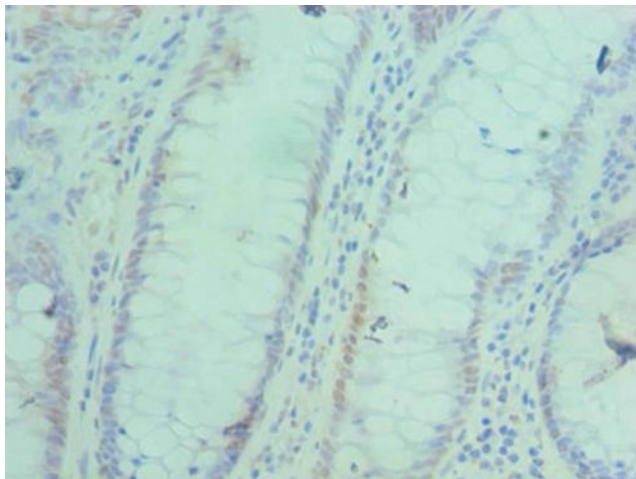


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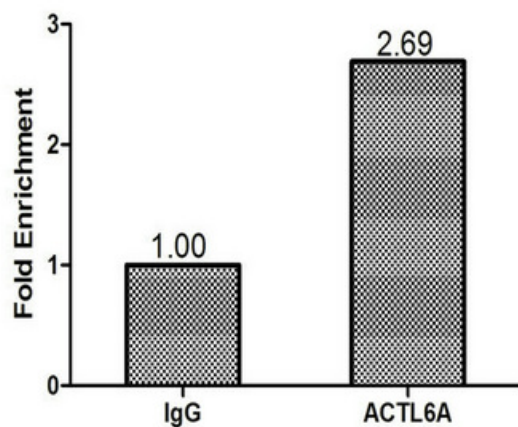
Background:

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. 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. Putative core component of the chromatin remodeling INO80 complex which is involved in transcriptional regulation, DNA replication and probably DNA repair.

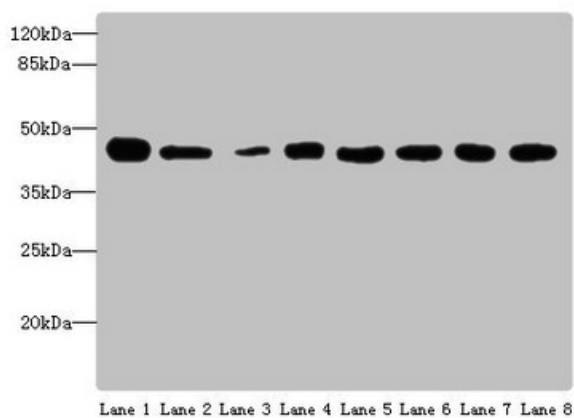
Product images:



Immunohistochemistry of paraffin-embedded human colon cancer using [TA386874] at dilution of 1:100



Chromatin Immunoprecipitation MCF-7 (1.1×10^6) were cross-linked with formaldehyde, sonicated, and immunoprecipitated with 4 μ g anti-ACTL6A or a control normal rabbit IgG. The resulting ChIP DNA was quantified using real-time PCR with primers (CSB-PP001236HU) against the TFF1 promoter.



Western blot

All lanes: ACTL6A antibody at 4 µg/ml

Lane 1: Mouse thymus tissue

Lane 2: Mouse spleen tissue

Lane 3: Mouse heart tissue

Lane 4: Jurkats whole cell lysate

Lane 5: K562 whole cell lysate

Lane 6: Hela whole cell lysate

Lane 7: A549 whole cell lysate

Lane 8: MCF-7 whole cell lysate

Secondary

Goat polyclonal to rabbit IgG at 1/10000 dilution

Predicted band size: 48, 44 kDa

Observed band size: 48 kDa