

**ACTB Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP10168a****Specification**

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**ACTB Antibody - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">P60709</a>
Other Accession	<a href="#">A2BDB0</a> , <a href="#">P63259</a> , <a href="#">P63260</a> , <a href="#">P63261</a> , <a href="#">Q5ZMQ2</a> , <a href="#">P63258</a> , <a href="#">P60711</a> , <a href="#">Q6QAO1</a> , <a href="#">P60710</a> , <a href="#">Q4R561</a> , <a href="#">P60706</a> , <a href="#">P60712</a> , <a href="#">P53505</a> , <a href="#">NP_001092.1</a> , <a href="#">P60708</a> , <a href="#">P60713</a>
Reactivity	Human
Predicted	Xenopus, Bovine, Chicken, Horse, Monkey, Mouse, Pig, Rat, Sheep
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

**ACTB Antibody - Additional Information****Gene ID** 60**Other Names**

Actin, cytoplasmic 1, Beta-actin, Actin, cytoplasmic 1, N-terminally processed, ACTB

**Target/Specificity**

This ACTB antibody is generated from rabbits immunized with a recombinant protein from human ACTB.

**Dilution**

WB~~1:500-1:1000

IHC-P~~1:50~100

FC~~1:10~50

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ACTB Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ACTB Antibody - Protein Information**

**Name** ACTB

**Function** Actin is a highly conserved protein that polymerizes to produce filaments that form cross-linked networks in the cytoplasm of cells (PubMed:[25255767](#), PubMed:[29581253](#)). Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as cell motility and contraction (PubMed:[29581253](#)). In addition to their role in the cytoplasmic cytoskeleton, G- and F- actin also localize in the nucleus, and regulate gene transcription and motility and repair of damaged DNA (PubMed:[29925947](#)). Plays a role in the assembly of the gamma-tubulin ring complex (gTuRC), which regulates the minus-end nucleation of alpha-beta tubulin heterodimers that grow into microtubule protofilaments (PubMed:[39321809](#), PubMed:[38609661](#)). Part of the ACTR1A/ACTB filament around which the dynactin complex is built (By similarity). The dynactin multiprotein complex activates the molecular motor dynein for ultra-processive transport along microtubules (By similarity).

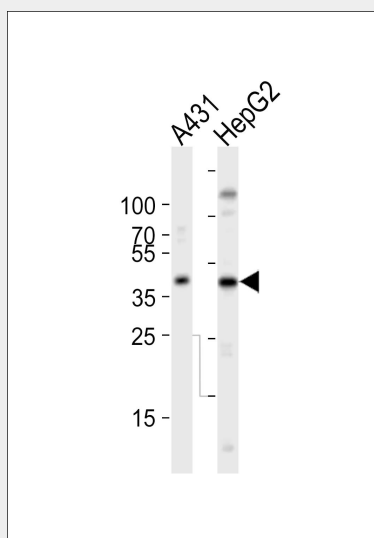
**Cellular Location**

Cytoplasm, cytoskeleton. Nucleus Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

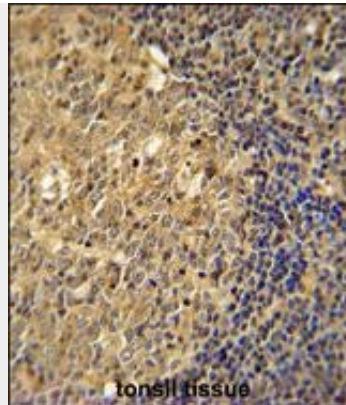
**ACTB Antibody - Protocols**

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

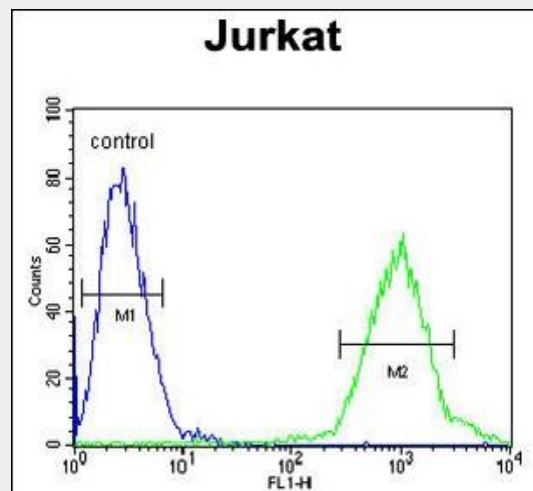
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**ACTB Antibody - Images**

Western blot analysis of lysates from A431, HepG2 cell line (from left to right), using ACTB Antibody (Cat. #AP10168a). AP10168a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L (HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



ACTB Antibody (Cat. #AP10168a) immunohistochemistry analysis in formalin fixed and paraffin embedded human tonsil tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ACTB Antibody for immunohistochemistry. Clinical relevance has not been evaluated.



ACTB Antibody (Cat. #AP10168a) flow cytometric analysis of Jurkat cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### ACTB Antibody - Background

This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility, structure, and integrity. This actin is a major constituent of the contractile apparatus and one of the two nonmuscle cytoskeletal actins.

### ACTB Antibody - References

Martins-de-Souza, D., et al. J Psychiatr Res 44(14):989-991(2010) Ambrosino, C., et al. Mol. Cell Proteomics 9(6):1352-1367(2010) Yoo, Y., et al. Oncogene 29(2):263-272(2010) Boratynska, A., et al. Acta Virol. 54(1):41-48(2010) Dugina, V., et al. J. Cell. Sci. 122 (PT 16), 2980-2988 (2009) :

### ACTB Antibody - Citations

- [Nonstructural Protein NS1 of Influenza Virus Disrupts Mitochondrial Dynamics and Enhances Mitophagy via ULK1 and BNIP3](#)
- [Cysteine-rich protein 61 regulates adipocyte differentiation from mesenchymal stem cells through mammalian target of rapamycin complex 1 and canonical Wnt signaling.](#)
- [Expression of pituitary tumor-transforming 2 in human glioblastoma cell lines and its role in glioblastoma tumorigenesis.](#)
- [Layer 2/3 pyramidal cells in the medial prefrontal cortex moderate stress induced](#)

[depressive behaviors.](#)

- [Effect of 5-caffeoylquinic acid on the NF-κB signaling pathway, peroxisome proliferator-activated receptor gamma 2, and macrophage infiltration in high-fat diet-fed Sprague-Dawley rat adipose tissue.](#)