

# Beta-actin Antibody

Purified Mouse Monoclonal Antibody (Mab)  
Catalog # AW5206

## Product Information

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<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">P60709</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Predicted</b>	Bovine, Chicken, Xenopus
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Calculated MW</b>	41737
<b>Antigen Source</b>	HUMAN

## Additional Information

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<b>Gene ID</b>	60
<b>Other Names</b>	ACTB; Actin, cytoplasmic 1; Beta-actin; Actin, cytoplasmic 1, N-terminally processed
<b>Dilution</b>	WB~~1:1000
<b>Target/Specificity</b>	ACTB recombinant protein is used to produce this monoclonal antibody.
<b>Format</b>	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
<b>Storage</b>	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.
<b>Precautions</b>	Beta-actin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ACTB
<b>Function</b>	Actin is a highly conserved protein that polymerizes to produce filaments that form cross-linked networks in the cytoplasm of cells (PubMed:<a href="http://www.uniprot.org/citations/29581253" target="_blank">29581253</a>). Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as cell motility and contraction (PubMed:<a href="http://www.uniprot.org/citations/29581253" target="_blank">29581253</a>).

target="\_blank">29581253</a>). 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:<a href="http://www.uniprot.org/citations/29925947" target="\_blank">29925947</a>).

## Cellular Location

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

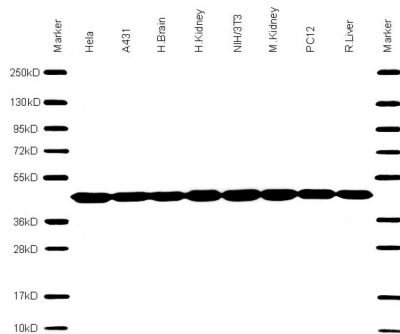
## Background

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.

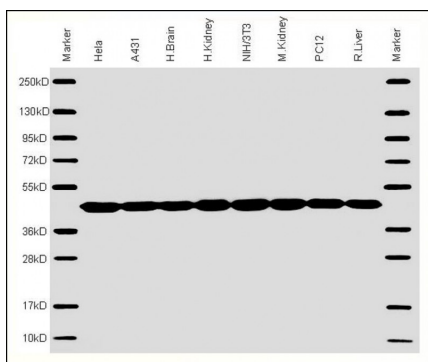
## References

Sex-specific proteome differences in the anterior cingulate cortex of schizophrenia. Martins-de-Souza D, et al. *J Psychiatr Res*, 2010 Apr 8. PMID 20381070. Identification of a hormone-regulated dynamic nuclear actin network associated with estrogen receptor alpha in human breast cancer cell nuclei. Ambrosino C, et al. *Mol Cell Proteomics*, 2010 Jun. PMID 20308691. Contribution of rearranged actin structures to the spread of Ectromelia virus infection in vitro. Boratynska A, et al. *Acta Virol*, 2010. PMID 20201613. Molecular mechanisms underlying nucleocytoplasmic shuttling of actinin-4. Kumeta M, et al. *J Cell Sci*, 2010 Apr 1. PMID 20197409. Tyrosine phosphorylation of cofilin at Y68 by v-Src leads to its degradation through ubiquitin-proteasome pathway. Yoo Y, et al. *Oncogene*, 2010 Jan 14. PMID 19802004.

## Images

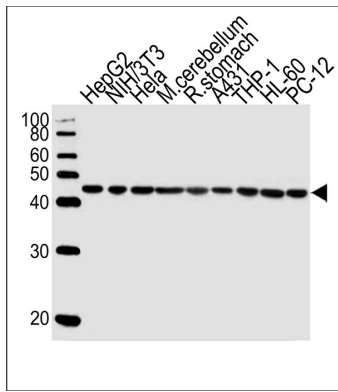


All lanes : Anti-Beta-actin Antibody at 1:2000 dilution Lane 1: HeLa whole cell lysate Lane 2: A431 whole cell lysate Lane 3: Human brain cell lysate Lane 4: Human kidney cell lysate Lane 5: NIH/3T3 whole cell lysate Lane 6: Mouse kidney cell lysate Lane 7: PC-12 whole cell lysate Lane 8: Rat liver cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 42 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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Western blot analysis of lysates from HepG2, mouse NIH/3T3, HeLa cell line, mouse cerebellum, rat stomach tissue lysate, A431, THP-1, HL-60, rat PC-12 cell line (from left to right), using Beta-actin Antibody (Cat. #AW5206).



AW5206 was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.