

**beta Actin Antibody**  
**Purified Mouse Monoclonal Antibody (Mab)**  
**Catalog # AP53271****Specification**

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**beta Actin Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P60709</a>
Reactivity	Rat, Pig, Human, Mouse, Rabbit, Zebrafish, Hamster, Monkey, Chicken, Goat, Drosophila, Fish
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Conjugate	Unconjugated
Immunogen	Purified recombinant human beta actin protein fragments expressed in E.coli.
Purification	Affinity Purified
Calculated MW	Calculated MW: 42 kDa; Observed MW: 42 kDa

**beta Actin Antibody - Additional Information****Gene ID** 60**Other Names**

A X actin like protein;ACTB;ACTB\_HUMAN;Actin;Actin cytoplasmic 1;Actx;b actin;b-actin;Beta cytoskeletal actin;Beta-actin;cytoplasmic 1;Melanoma X actin;N-terminally processed;PS1TP5 binding protein 1;PS1TP5BP1.

**Dilution**

WB~~1:10000

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

**Storage**

Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

**beta Actin 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:<[a href="http://www.uniprot.org/citations/25255767"](http://www.uniprot.org/citations/25255767)target="\_blank">25255767</a>, PubMed:<[a href="http://www.uniprot.org/citations/29581253"](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>). 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>). 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:<a href="http://www.uniprot.org/citations/39321809" target="\_blank">39321809</a>, PubMed:<a href="http://www.uniprot.org/citations/38609661" target="\_blank">38609661</a>). 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

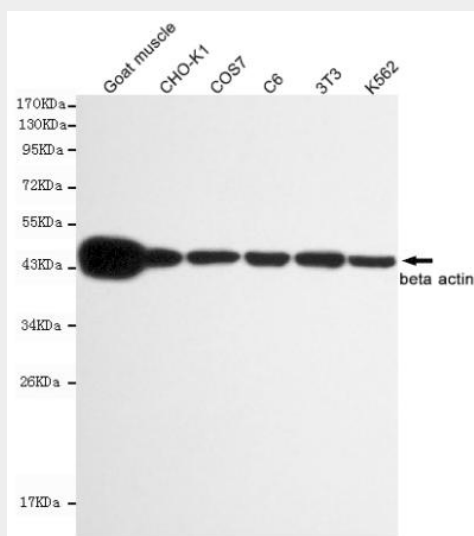
Cytoplasm, cytoskeleton. Nucleus Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

### beta Actin 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](#)

### beta Actin Antibody - Images



Western blot detection of beta actin in C6,3T3,COS7,CHO-k1,K562 and Goat muscle cell lysates using beta actin mouse mAb (1:10000 diluted).Predicted band size:45KDa.Observed band size:45KDa.

### beta Actin Antibody - Background

Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

#### **beta Actin Antibody - References**

- Ponte P.,et al.Nucleic Acids Res. 12:1687-1696(1984).  
Nakajima-Iijima S.,et al.Proc. Natl. Acad. Sci. U.S.A. 82:6133-6137(1985).  
Ohmori H.,et al.J. Cell Biol. 116:933-941(1992).  
Hillier L.W.,et al.Nature 424:157-164(2003).  
Gevaert K.,et al.Nat. Biotechnol. 21:566-569(2003).