

**ACTB / Beta Actin Antibody (clone 1E7)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS14305****Specification**

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**ACTB / Beta Actin Antibody (clone 1E7) - Product Information**

Application	<b>WB, IHC-P, E</b>
Primary Accession	<a href="#">P60709</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Calculated MW	<b>42kDa KDa</b>
Dilution	<b>WB~~1:1000</b> <b>IHC-P~~N/A</b> <b>E~~N/A</b>

**ACTB / Beta Actin Antibody (clone 1E7) - Additional Information****Gene ID** 60**Other Names**

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

**Target/Specificity**

Human Beta Actin

**Reconstitution & Storage**

Aliquot and store at -20°C or -80°C. Avoid freeze-thaw cycles.

**Precautions**

ACTB / Beta Actin Antibody (clone 1E7) is for research use only and not for use in diagnostic or therapeutic procedures.

**ACTB / Beta Actin Antibody (clone 1E7) - 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](http://www.uniprot.org/citations/25255767), PubMed: [29581253](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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:<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

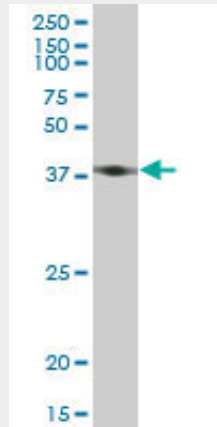
Cytoplasm, cytoskeleton. Nucleus Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

#### ACTB / Beta Actin Antibody (clone 1E7) - Protocols

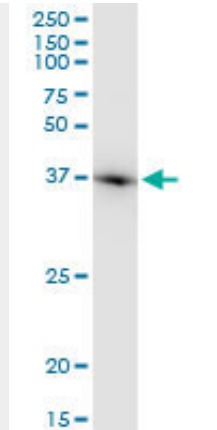
Provided below are standard protocols that you may find useful for product applications.

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

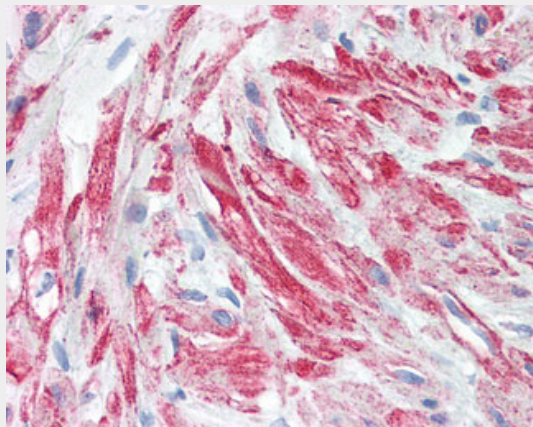
#### ACTB / Beta Actin Antibody (clone 1E7) - Images



Western blot of ACTB expression in Jurkat.



Western blot of ACTB expression in NIH/3T3.



Anti-Beta Actin antibody IHC of human prostate, stroma.

### **ACTB / Beta Actin Antibody (clone 1E7) - Background**

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

### **ACTB / Beta Actin Antibody (clone 1E7) - 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).